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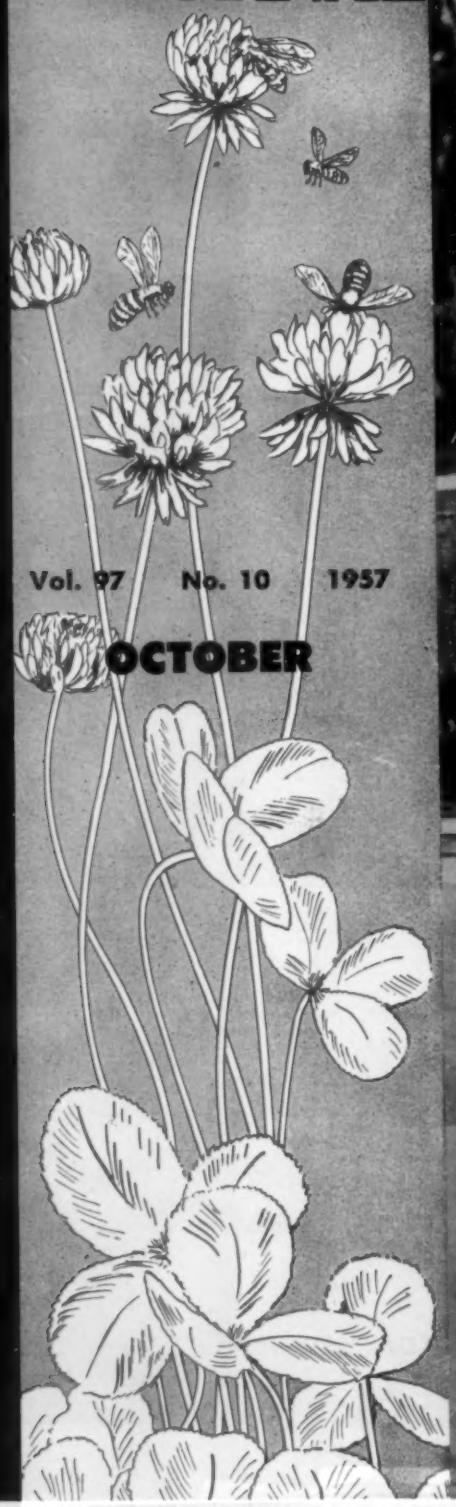

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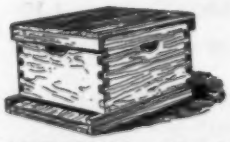
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The American Bee Journal — Hamilton, Illinois

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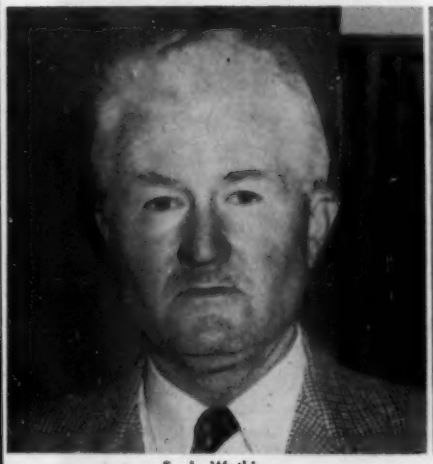
American Bee Journal

Hamilton, Illinois

The Commercial Beekeeper

Are commercial beekeepers industry leaders? Or are they too busy being "commercial"? Here's part of the answer. S. J. Watkins, Grand Juction, Colorado, has a thousand or two colonies of bees, yet he's President of the American Beekeeping Federation. John Holzberlein, Meeker, Colorado, has between one and two thousand colonies, but is active in state and national affairs. John Lis, Des Plaines, Ill., has between one and two thousand colonies and is particularly active in the vigorous Cook-DuPage Association. Robert Banker, Cannon Falls, Minn., has about six hundred colonies, and is the Secretary-Treasurer of the Federation. Winston Dunham, Professor in Ohio State University and beekeeping leader in that State, has over a thousand colonies. Harry Dale, with six to seven hundred colonies in southern Illinois, is President of the Illinois State Association.



S. J. Watkins

John Holzberlein

John Lis

Robert Banker

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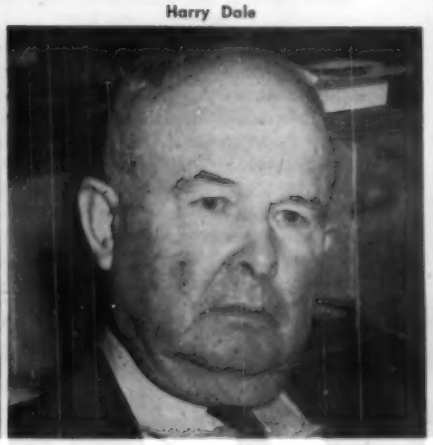


Put Them Away Happy

If you turn back to the "good old days" in the beekeeping journals, you will soon decide that winter loss was almost the number one problem in beekeeping. In a way it was because so little was understood about wintering that the obvious attempt to reduce losses was to consider the bees just as human as we are and try to keep them warm and reasonably well fed. So we built "houses" for them; winter cases with abundant packing; we grouped them for mutual warmth; we put them in warm cellars—cold kills bees so let's keep them warm.

Perhaps we have all seen those colonies of bees in boxes or barrels or some nondescript domicile, with cracks and crannies, that came through real cold winters in wonderful condition. Of course they had all the honey they had made the previous year because no one could take that away from them. They not only had all the honey for themselves but they had mixed it all up with a lot of pollen.

Then we started to see daylight. It was not cold so much that killed bees in winter as it was lack of honey and pollen. So we began to try to change the situation and we tried to make sure that each colony had plenty of honey and pollen. But we had left out one thing—the honey had to be where the bees could reach it all winter and the pollen must be with the honey and not by itself.

Cold is secondary to food within reach of bees all the time in winter. If a colony is in two bodies and heavy with stores, can the moving cluster cover its food as it moves upwards? If the moving cluster reaches topbars, for instance, perhaps it is so cold that it is unable to cross the bars and the space above. Yet there is an end to the food below in the upward path of the cluster. Honey and pollen may yet be in the side combs but the poor bees can not get over to those combs. It's too cold for anything but upward movement as there are too many barriers in the way. They have to pass over the tops of the frames or under the bottoms to get to the sides. Imagine them doing that with a temperature normal to winter. The only way they can make such a transfer is to be lucky enough to get a warm day before they starve.

Yes, that's right—before they starve. We have seen dead colonies in spring with honey in the top story; or with bees at the topbars, heads in cells, dead: or with combs of honey and pollen at the sides and bees all dead in the center. And perhaps the first natural assumption is that the bees died because they were frozen to death. The cold did not kill them. They starved.

We used to think too, in spring, that bees sometimes were so slow getting new brood to build up that it was the weather. It was just too cold. Now we know that, if a colony is slow in spring, it may be because they are clear out of pollen.

Then, it was taught us that bees that started brood in winter did so because they were too hot! That they were eating so much to keep warm the cluster got up to brood temperature; the queen started laying and—good-by colony.

Now we know that any colony, well provided with honey and pollen, in the right place, for winter, always starts brood early, long before winter is over. As a result we get very early replacements with new bees and we get strong colonies early.

So, there you have the modern version of wintering. Don't worry about packing so much as about food. Any strong colony, with food in abundance in the right place, will winter. Poor, weak, fall colonies are not worth carrying through winter. Unite with the strong ones and replace in the spring.

If you want to pack, use tar paper or simple cases, black in color. It does reduce the consumption of stores somewhat, and enough heat is absorbed to let the cluster move more readily. Keep out the wind by shelter, where as you stand in the spot the winter sun is warm. Under such conditions, bees winter wonderfully.

A simple tar paper wrap without packing.

Tar paper wrap with packing and bundle-type string.

Panels of Celotex with metal corner pieces, all held together with wire. Bottom entrance closed, top entrance open.

Producing Cut Comb Honey For Cartons

by Walter M. Copeland

Somewhere along the line in honey marketing came the plastic bag and the bag makers said, how nice it would be to have honey in a see-through, leak-proof, moisture-proof container. Just how to get the honey into the bag was left for the buyer of the bags to think about. Chunk honey, fit for display, is something other than size, shape, thickness or any kind of honey from any kind of frame. It is honey in the comb, competing in sales with comb honey in the section. When the cut comb is carefully inserted in the bag and the bag inserted in a carton, it makes a pleasing article of food.

Since it is accepted by custom, that the comb should be about a pound in weight, it follows that the right size is about four and an eighth inches square. To insure its fulness, five and three-eighth frames (or larger) should be used, separated by fences, since they aid greatly in producing even-surfaced combs of uniform thickness.

Also, since every effort must be made every step of the way, to produce a fine article for sale, the beekeeper should start with the right frame and with a grade of foundation adapted for chunk honey. It is important that the foundation be held in the top bar and supported in a groove in the bottom bar or fastened in by waxing along the center line.

A frame board should be available for this job, cut to fit a bit loosely inside the frame and mounted on a larger board. Thickness is not important as thin shims can be placed under the edges of the frame and nailed to the base board which will bring the center line of the frame across the surface of the top board. This makes a platform for the foundation to rest on and so helps in getting the foundation into the frame quickly and correctly.

Horizontal wiring helps get the foundation drawn out completely and in a smooth plane. Number 3 copper tacks and eyelets are inserted in the end bars before the frame is assembled. Lay one pair of end bars down side by side on the bench with the beveled edges at the right. Insert two eyelets in the holes drilled for wiring and insert the tacks three-quarters down, close together, and in line with the holes nearest the top bar and also two in line with the holes nearest the bottom bar. To insert the end bars correctly into the top bar, the flat edge of the left end bar should be uppermost in the right end of the top bar, with the top tack on the right side and the lower tack on the left side of the center line.

After the foundation is fastened in at the top the horizontal wires are pulled in. Push in the wire through the upper eyelet of the left end bar, across the foundation, and through the top eyelet in the right end bar, with about two inches hanging. Twist the wire around the tack in the left end bar and break the wire. Then pull the wire tight at the right and wind around the tack. Break wire and push in tacks with pliers. Turn the frame over and repeat the operation with the bottom wire.

Now your frame is wired to hold the foundation in a perfect plane. Embed the wires with an electric embedder. Then fasten the bottom edge of the foundation in a straight line with melted wax.

The frames should be all assembled, with fences and super shells ready when the nectar flow begins, although the insertion of the foundation can wait until warm spring weather makes it safe to work with foundation.

When the nectar flow starts and the foundation is drawn out on both sides of the frame, regardless of the amount of honey stored, cut each wire at the eyelet and pull the wires out. The wires have completed their purpose in holding the foundation straight and even during cell building. The bees will repair any damage caused by removing the wires.

During the summer, before taking off the supers, trim off all burr comb, bridges and wax that might damage the surface of the capping so the bees can repair any surface damage.

Now let's consider the second part of this job of converting honey into money. You will need a jig, or some contraption, to hold the plastic bag when the honey is inserted. It is made in three parts—a box, and one left slider and one right slider.

The leg pieces of the box are made of 13/16th board stock, two pieces 8½ x 2⅜. The side pieces are made of 5/16th fruit or melon box stock, two pieces 4⅜ x 8¼. Each of these side pieces have a piece of the same stock, 4⅜ x 5 nailed to their inside surface. Mark the center line of the 8¼ and the 5 inch pieces and securely nail together. Nail the completed side pieces, with the fillers facing each other, onto the leg pieces, ⅞ inch down from the top of the leg. The box should be sandpapered and the feet of the leg pieces filed so the box will stand firmly on the table with the ⅞ inch leg extension upwards.

The sliders are made of 13/16th stock, two pieces 2½ x 8½ inches long with the grain the long way. Nail a cross piece onto each slider ¾ x ⅞ x 2½ inches, 2½ inches down from one end and on this cross piece staple two rattan rods 3/16th x 4¼ inches. Be careful that the staples fit the rod and do not crush the rattan. They are spaced 1½ inches apart.

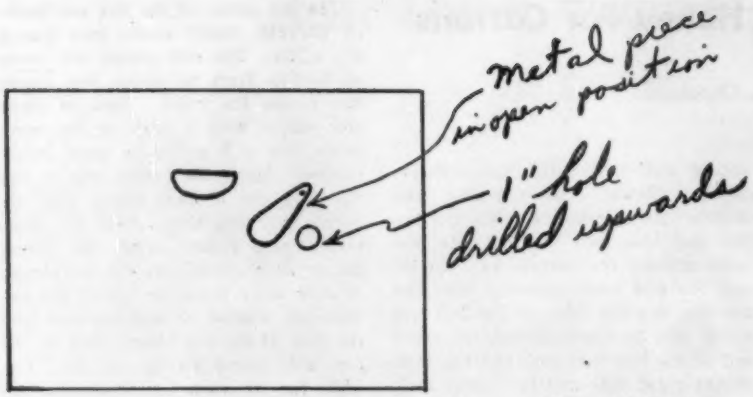
To operate this gadget, cut the honey out of the frame carefully with the frame lying flat on the table or on a cookie sheet or other metal pan. Trim the edges of the honey carefully to get rid of excessive wax. Let drain a little, then pull the excess liquid honey away from the square with a pancake lifter.

Turn down the edge of the plastic bag about two inches and slip the folded edge over the rattan fingers of one slider. Then take the other slider and insert the fingers in the same way. Adjust the bag evenly up close to the crosspieces and drop the sliders and bag down into the channels of the box. Then scoop up the cut honey with the lifter and carefully insert it into the bag. Experience will soon determine the correct width of cut.

Now reach through the bottom opening and take the bag by the edges. Fold over the top of the bag at the sides and again fold over from the top down. Then stand the whole thing into the final carton with the top of the bag upwards and the white price-square of the carton also upwards, so the loose honey will not run out of an inverted package.

There you have it. I believe that good packaging of a perfect product will insure repeat orders and this is one way, with little equipment, to get a maximum return per pound of honey.

Massachusetts



A Universal Upper Entrance

Warren C. Singer
Ponca City, Oklahoma

The question of whether or not to use the presently advocated upper entrance has had three serious drawbacks in my mind. I have heard these disadvantages expressed before but they have never been satisfactorily resolved in any article or discussion that has come to my attention.

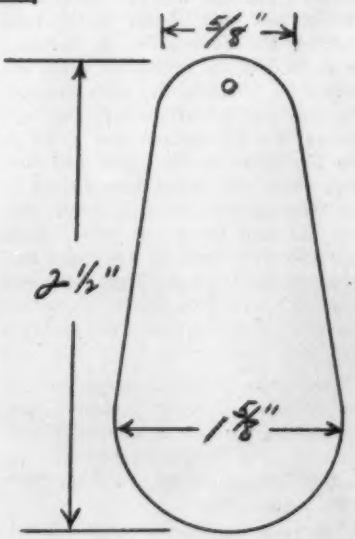
These disadvantages are:

1. The "ruining" of perfectly good equipment.
2. No satisfactory method of closing the entrance when the bees are being moved.
3. The care and excessive handling of frames when changing the position in the stack of that portion of the brood nest in the chamber with the upper entrance.

The recommended ¾" hole in the handhold is, to me, entirely unsatisfactory as this is the most difficult point in a brood chamber to close satisfactorily with any type of plug or simple closing device.

The ¾" hole beside the handhold is much better but it seems to be too high allowing a too rapid escape, almost a draft, of the warmer air. It will also allow the blowing of rain through the hole onto the end bars of the frame opposite it, besides being too small for all the bees that want to use it, causing congestion and delaying bees going to and from the fields.

The reversing of the inner cover with a hole cut in the outer rim is likewise unsatisfactory. This does not allow enough ventilation.



This opening in the rim cannot be easily closed and it precludes the use of the deep side of the inner cover for use in feeding dry sugar.

We have met all these objections easily and simply, still retaining all the advantages of the upper entrance, with no serious disadvantages as follows.

A. Locating a 1" hole 3 inches to the side of the handhold and slightly below the centerline of the upper brood chamber. This hole is drilled from the outside upward at an angle of approximately 30°. The 1" hole eliminates much crowding and jostling among the bees using it. The upward angle acts as a damper to reduce the volume and velocity of air escaping from the interior of the hive. It also shuts out most of the rain that would normally blow in.

B. This hole is closed by a piece of galvanized sheet metal of the size and shape shown, held in place by a round headed wood screw at the top.

This entrance is easily and securely closed by simply swinging the metal piece over the hole. This effectively closes the hole, confining the bees during moving operations and also permits changing the position in the stack of any brood chamber without handling frames. Just close the entrance in one brood chamber and open the entrance in the one that replaces it in its position in the stack.

This arrangement has proved entirely satisfactory in every respect under all conditions, providing the advantages of the upper entrance with none of the disadvantages, adding a very superior feature to equipment at an infinitesimal cost.

Paul Horguelin of France

A distinguished and interesting visitor to the office of The American Bee Journal recently was Paul Horguelin from Nuisement/Coole, Marne, France. Mr. Horguelin was in this country to visit several of our research laboratories and to get a first-hand look at American and Canadian commercial beekeeping. His travels took him to Washington, D. C., Ohio, Michigan, Illinois, Iowa, Minnesota and Wisconsin in addition to several provinces in Canada.

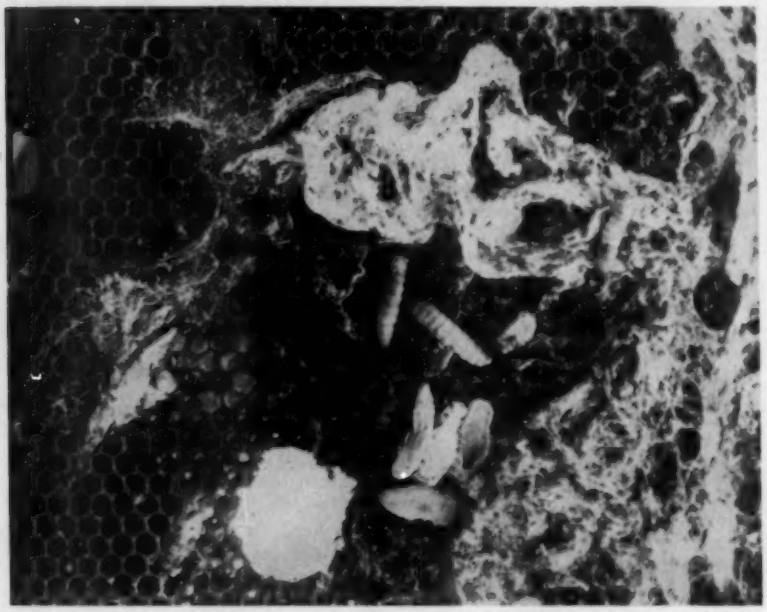
Mr. Horguelin is a large commercial beekeeper and is an outstanding leader of French beekeepers. He is a past-president of the Syndicate of Honey Producers of France, and is vice-president of the National Union of French Beekeepers. This association publishes the journal, Revue Francais, and Mr. Horguelin is its editor.

That Pesky Bee Moth

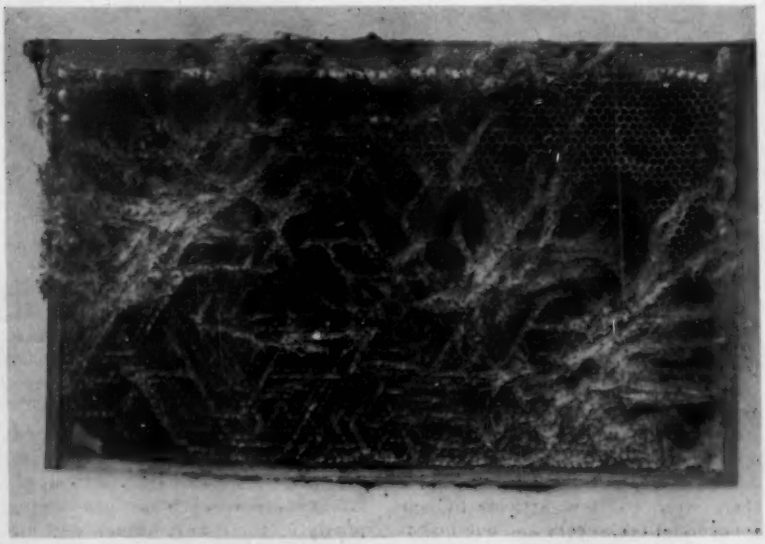
by **G. H. Cale**

Years ago this happened. Supers of comb had been stored in an old building in fall. Just before cold weather they had been fumigated with cyanide. Winter came and spring. Out of sight out of mind. Busy with spring work we thought little of those supers in that weather-beaten building with its cracks and holes.

But the live moths from obscure cocoons between the covers or elsewhere in the bee yard at the side of the old house found a wonderful place for their eggs in those stored supers. When we needed the supers at the start of the flow, they were taken out of storage and carried to the yards. There were webs, larvae and moths in many of them, the comb entirely destroyed.



Moth tunnels, larvae, and cocoons, in partly destroyed comb.
—Photo from Monica Blake, Belair, South Australia



A good start towards destruction. Tunnels and webs have already penetrated into very center of comb.

This is not an uncommon experience. We should have fumigated the supers again in spring. This very fall, in bringing in supers of honey from my own yards, I had to store them in the honeyhouse while a previous lot was being extracted and the empties removed, before the extracting of mine could start. The interval was about two weeks. Moths maturing from the lot being extracted flew to my supers, laid, and the eggs hatched. Larvae had built webs, here and there, throughout the piles. The result was that about ten percent of the supers of my honey had moth infestation. That's not uncommon either but it's not pleasing.

So what do we do about these pesky moths? Fumigation is obviously the answer and there are quite a few fumigants available. In the old days sulphur sticks were used to burn in the house. Fire was a hazard and the penetration was not always enough to get all the larvae, particularly in their webs.

Carbon disulphide is a fairly good fumigant, especially in storage or to kill out any small larvae in comb honey. Two fumigations are better than one. But carbon di-sulphide will blow you right out of the building if you go in with a lighted cigarette while the fumes are still about. Or if you have a fire for warmth, look out—Whoosh!

That long, smart chemical name, paradichlorobenzene, or moth crystals designates a pretty good fumigant, but it is better as a preventive than it is as a killer. You have to use gobs of the crystals to kill and quite a lot for prevention. Combs absorb their odor and need a lot of airing if there are still crystals present when you want to use the combs again. Don't use it on comb honey or you will have a real taste mixture of honey and crystal odors that will spoil honey fast.

Cyanide is a sure bet against moths. It's dangerous as it will kill the operator as quickly as the moths if one does not know how to use it. In our use we often set supers with combs that have just been extracted out-

doors for the bees to clean out. Then, before storing them, we use crystal cyanide (G-Fumigant) between the top two supers in a stack of ten (shallows). Takes about as much fumigant as you can get on the broad end of a hive tool, on a cloth pad. You don't have to use a gas mask outdoors. But if you use cyanogas inside you must use one.

Cyanogas won't kill the eggs of the moth. If supers are set out or stored in August, for example, you'll have to fumigate again in three weeks. If the weather is warm, fumigate three weeks after that. If you then store them, fumigate at the time of storage. In spring, by June 1-15 in our location, we "dope" again. Takes a lot of attention and material.

Lately (see the article by H. M. Krebs "Ethylene Dibromide—Death to the Wax Moth," in April, page 132) a new fumigant is available. It has been used before in the West but no one here seems to have used it. We have this year. It is apparently the best fumigant we have tried. The ethylene dibromide we used came from the Dow Chemical Company in Michigan. Best thing about it is that it seems to kill all stages of the wax moth, even the eggs, so perhaps one fumigation will do unless the bodies of combs are outdoors where flying moths from somewhere else can lay outside in small cracks. Inside there should be no chance of this unless equipment is brought in from one of the yards. Also ethylene dibromide is less dangerous than cyanide. The operator should not breathe too much of it inside without the doors and windows open. It is certainly worth a good try and we are delighted with it so far.

DRYING CAPPINGS

by Bruno Racine

I uncap combs over an empty hive fitted with a wire queen excluder at the bottom. I fix six like this. They handle easily without too much effort and they hold a substantial amount of cappings and there is no need to shovel the wax out as they are handled as units.

When one is full it is removed from the uncapping tub and set over a tray for 24 hours for additional drainage. Then it is turned upside down over a thousand pound honey tank equipped with a tap and, by using a stick as a pry, the block of cappings drops out quickly and the cappings may be broken loose easily to gain room. One capping box represents 1200 pounds of extracted honey; the full tank, 12,000 pounds (more or less).

When extracting is over the tanks of cappings, from which the honey has drained out, are filled with water to within a few inches less than the wax level. Let soak over night. Next morning stir the cappings with a stick to get out more honey in dilute form. Now drain off the sweetened water and pour this into another tank through a strainer for a clean syrup. This honey syrup is about half honey to one of water and it will keep only a few days, especially in warm weather, as it will ferment.

With that cold, sweetened water I proceed to make a heavy syrup for the fall feeding which is usually just beginning. I add enough sugar until the thin honey syrup is increased in thickness by a half (1½ sweet to 1 water). It needs a lot of stirring if it is mixed cold. Finally sulfathiazole is added for disease prevention.

This plan is economical; all cappings honey is saved; and the washed cappings produce a superior quality of wax. No heat needs to be used and no expensive equipment. Because of draining, the honey from the cappings it is the finest quality, very important when you consider that about twelve per cent of the crop will be from that source.

St. Jaques, Quebec

The Kind of Reading We Want

by L. R. Stewart

In a talk a few years back we we stated our bee journals would be more interesting if they carried fewer scientific and research reports and more articles by the successful, practical, know-how beekeepers. I added, the reports were fine if the reader could apply them to his everyday problems but as their practical application was not often indicated, their value was frequently lost.

One reason for this preponderance of front office material is that the compensation for it is extra income for the writer who is already on a salary whereas the fellow who depends upon his bees for a living can't afford to spend the time preparing an article when the compensation would not much more than pay for its typing.

For making this statement we were severely and publicly criticized. So we got a lot of satisfaction at Biloxi once when Dr. Warren Whitcombe, Jr., of the Baton Rouge station said there were too few articles by our commercial beekeepers and our magazines would be more interesting if they carried more material by these know-how, practical men.

To further illustrate our point we would like to call your attention to Forrest Nicholas of Auburn, Ind., and his extractor. Mr. Nicholas is a swell fellow, quiet and industrious who doesn't like publicity and says he is a very poor writer. But he will patiently explain his equipment and how he uses it. He operates 1200 colonies and in 1955 he and his good wife with a little extra help produced 65 tons of honey and 3200 pounds of wax.

The big labor saver of the Nicholas' outfit is his homemade extractor. It is a radial and holds 5 ten-frame standard shallow supers. With a little adjustment, it will also take standard hive bodies. In each super he uses but seven frames and they are kept in place with nails driven through the ends of top bars. The super of honey is set flat on a Brand uncapping melter. He uncaps with a special knife made from a regular cold knife whose handle has been straightened, center of blade cut out and a steam line welded in the hole. The cutting movement is downward and from end to end. Any comb the knife misses is opened with a Woodman scratcher. However, there won't be much comb the knife won't get as the combs are fat, the large quantity of wax resulting from this same fatness. After super is uncapped it is set in the extractor on end, top bars out. A clamp holds super in place and another clamp hinged to axis of extractor pulls down over outside frames and draws them toward center of super. It takes one minute to uncap a super and from 15 to 20 minutes to get a bone dry extracting.

There are hundreds of other fellows like Mr. Nicholas, practical, efficient beekeepers who are going quietly on their way, unsung and unknown but who have valuable methods and practices if we only knew them.

The Sideline Beekeeper

A picture window in the front of a cement block honey house in Wisconsin, with a nice display of honey - liquid, chunk, comb, different sized packages, flanked by colorful flowers. Any Sideliner who distributes his own honey can figure ways to take advantage of display in marketing. Many Sideliners, and even some Commercial men, dispose of much of their crop at home. Odd thing about this window is that it is a show window in the honey house of William Judd of Stoughton, Wisconsin, a commercial operator with over twelve hundred colonies!

Fall Management

Robbing - Uniting Weak Colonies

by Julius Lysne

We do not have bees long before robbing gives us trouble. The time of most danger is in the fall when the flow ends. Bees then have a let-down feeling, maybe of anger and disappointment because their income has stopped. Perhaps their state of mind is like that of humans when business is bad.

If colonies are manipulated then and bits of burr comb containing honey are dropped, the bees will find these particles almost at once and soon the yard may be in an uproar. Robbers try to steal honey from any hive and the air may become full of angry bees stinging everything and everybody. Such a state of affairs is often more than the most experienced beekeeper can brave.

The mistake of course is in handling colonies at such a time. The best defense against robbing is not to let it get started. Once robbing has started, load the smoker and get it going well. Drive the bees back at every entrance and put in entrance guards. A pile of weeds or grass laid down loosely at the reduced entrances will slow up the robbers. If any hive has an auger hole or top entrance stuff grass there tightly so the bees cannot enter. Close cracks at the corners the same way. Strong colonies will now be able to defend themselves and the robbing will quiet down. This plan will restore order and the bees should be left alone for a time. However, from now on, there will be robber bees in small numbers always looking for a chance to enter any hive to steal honey.

Some of the colonies may not have enough winter stores if there has been a robbing frenzy early in the fall. Keep dry sugar on the inner cover of each hive all fall and even during the winter. It is always difficult to detect which colonies may be short of stores.

It is a mistake to try to winter weak colonies and these should be united with strong ones. Nail pieces of sections over the escape holes of the inner covers of the strong colonies, leaving a crack about an inch wide for an opening through the center holes. The weak colonies are then set on top of the strong ones, with no entrance except through these cracks left in the inner covers.

The bees from the strong colony will go up and rob out the colony above and the bees leaving the top colony will not return to it but will remain in the hive below. In time all of the population and the honey will be out of the top hive and it may then be removed. This actually makes use of robbing to transfer the bees and honey from one hive to another.

Some prefer to reduce the brood nest to one body during the active season, the food chamber being set over a weak colony during the summer. To put back the food chambers, simply smoke down most of the bees and set back on the hives one at a time.

The food chambers may also be set aside on a separate stand, given two combs of brood, three combs of honey and a ripe queen cell from selected stock. In due time there will be a young laying queen and the bees will fill the body with honey. In the fall set this on top of the colony to which the food chamber belongs and the colony will also be automatically requeened. It will also have ample winter stores and receive a big boost in population; ideal conditions for wintering. No time will have to be spent looking for queens for requeening.

Should it be desired to change the race of bees or the stock, that can be done easily by the following method: Let us assume we have Italians and wish to change to Caucasians. Order the required number of Caucasian queens and, when they arrive, introduce them this way; remove the cover of the food chamber hive and blow plenty of smoke into the entrance. The bees will soon boil over the tops of the frames to avoid the smoke. When the queen is seen, kill her and introduce the Caucasian. When she has well established brood, unite as already explained.

The advantage of fall requeening, when another race is desired, is that the drones are killed off by the bees in the fall and should supersedure take place the next spring no drones of a different race can cause a mixture of unwanted hybrids.

Baling Twine

I think I have used almost everything going for smoker fuel— rotten wood, cedar, corn cobs, burlap, oily rags, sumac bobs, leaves, planer shavings. I once won a smoker contest burning sumac bobs. My most common fuel has been rotten wood which I have gathered when and where I could find it and let dry for months.

This year I have a different fuel which is quite abundant here, is cost free and has a very pungent odor, namely baling or binder twine. The farmers remove it from baled hay and they are glad to give it away because they only burn it. All a person needs to prepare it for use is a sharp knife or a block and hatchet. It works most conveniently in a jumbo smoker because that holds the most twine. I fill the smoker, pour in a little fuel oil; then light it.

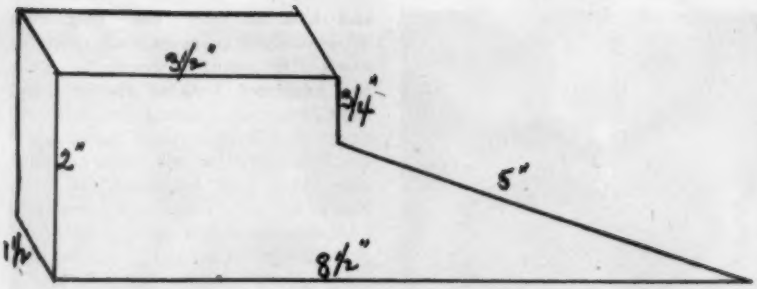
Ivan Whiting
Illinois

Seeding for Fine Granulation

One thing noticeable about honey on the market which has been packaged by the beekeeper is the coarse granulation in creamed honey. Why not seed your honey and put out a product with good granulation? The addition of about five percent finely granulated honey in your packing tank will give tremendous improvement. When emptying the tank leave sufficient to seed the next filling.

D. R. Robertson
in Manitoba Newsletter

and took off over the neighbor's



A Wedge For Queen Cell Examination

by Dr. G. A. McLellan

One of my neighbors, Robert Spicer, has been a beekeeper over fifty years and, during that time, he has developed many practical ideas, one of which is so useful and time saving that I am passing it on (with his permission). It is a wedge like the one illustrated to place between supers to check for queen cells which are usually located along the bottoms of the combs and so can be seen readily after the wedge is inserted and the aperture is smoked to get the bees out of the way.

If you use a queen excluder, as I do, over the second body from the bottom, it is only necessary to place the wedge between the two lower bodies to make the examination. If you find queen cells it is of course necessary to investigate further. Otherwise you have a pretty accurate idea of the danger of swarming in a few minutes time and with very little exertion.

A few pointers about placing the wedge are in order. Separate the two lower bodies with your hive tool and then introduce the wedge in the center rear. For extra leverage I use an old automobile spring tire-iron, forcing the wedge forward while elevating to the notch on the wedge, at the same time smoking to get the bees out of the way. The next step is to stand along the right side of the hive, facing the rear, and there is room to introduce the fingers of the left hand between the bodies, raising the top one, removing the wedge to slip in again upright so the top hive body will come down on the notch to hold the supers apart while you investigate for cells. You can scrape off the queen cells too through this aperture if you want to take a chance that there are no cells in the center.

If you do not use excluders, then you will have to follow the same procedure between the other bodies or supers. I enclose a diagram of the wedge with measurements that can be varied as one desires. To lower the bodies the process is reversed and, with a little practice, it is surprising how quickly the parts can be accurately replaced with little exertion in a very short time.

East Orange
New Jersey

Finger points to asbestos lining in smoker.

LINING MY SMOKER

by Paul Steffen

I had been searching for sometime for a method of preventing the fire damage in the fire box of my smoker. Finally I hit on the idea of lining the inside of the fire box with a layer of thin asbestos, such as that used for wrapping furnace pipes.

I did the lining by cutting a piece of asbestos long enough to go around the inside of the fire box and lap an inch or so; and wide enough to reach from the top to the grate. Then to hold it in place, I used two pieces of hard, springy wire bent to a curve considerably larger than the fire box. These I compressed and slipped inside the smoker, one near the top, and the other near the grate. They have held perfectly for a year.

The hard springy wire I mentioned was obtained from a short piece of German-made barbed wire which is light weight, yet very tough and springy. I simply removed the barbs and separated the strands.

I am not qualified to say how much good this lining will do, but I feel that if applied to a new smoker it would greatly lengthen the life of the fire box. My smoker had already been through the mill before it received any attention!

I am enclosing a picture of the newly-lined smoker showing the white asbestos. I regret that it is so blurred.

Paul Steffen
R.R. No. 2
Pierceton, Indiana

D. A. Jones Honored in Canada

On June 1, Canadian beekeepers honored one of their early beekeeping celebrities by erecting a plaque to the memory of D. A. Jones at his old home in Beeton, Ontario.

Jones imported the first queen from the East into Canada, edited the first Canadian bee journal (1867); made the first Canadian bee comb foundation. In co-operation with the late Frank Benton of the first Bee Culture Laboratory, imported queens from Palestine, Cyprus, Italy and reared queens from them on the islands in Georgian Bay. His large crop in 1880 was 70,000 pounds.

A disastrous fire, which completely destroyed his bee supply and foundation factory and his bee magazine endeavors, resulted in his financial failure but only after he had sparked beekeeping in Canada. He was born in 1835 and died in 1910.

Bee Diseases in Britain

The British Bee Journal for July 6 gives a summary of disease conditions for England and Wales. The incidence of disease seems to have increased slightly for 1956 over 1955, with American foulbrood still the chief offender among the brood diseases. Overall percentage of disease is in the neighborhood of 4-5 percent, among the bees inspected.

Boy Scout Snyder examining his bees.

Boy Scouts Learn About Bees

by William Snyder

My beekeeping started a little more than a year ago. Dad came home from work one evening and told me about some men who wanted to start a beekeeping club and he asked me if I was interested in learning about bees. I certainly was and in two weeks' time we were both charter members of the Baton Rouge Beekeeping Association.

During the second monthly meeting I met Steve Taber, as employee of the government at Louisiana State University and also a counselor for the Boy Scout Beekeeping Merit Badge. He told me about the program and I immediately made an appointment to start working on the beekeeping merit badge.

On my first visit to the apiary Mr. Taber assigned me a colony and told me that I was responsible for the care of it for the next three months. He showed me how to use the hive tool, smoker and bee veil. The second time I was stung he showed me how to reject the stinger to prevent excessive swelling. Then I started learning to recognize the workers, drones and queen and their respective comb cells, with honey, pollen, eggs and larvae, capped brood, and when it was necessary to feed the bees.

Snyder's full colony at end of season.

After I became quite familiar with the hive, he demonstrated the way to start a new colony, how to introduce a queen, how to raise queens and he showed me how to inseminate a queen instrumentally; then how to manage the hive, remove honey and uncap and extract.

When I had completed most of the requirements for the Beekeeping Merit Badge I decided to get a colony of my own so I bought the equipment and a three pound package of bees with queen. I'll never forget my first experience when I introduced the bees. I soaked them with syrup and dumped them into the hive, proceeding then to open the queen cage. The queen flew between my fingers, circled three or four times and took off over the neighbor's house. I stood there dumbfounded for about five minutes, wondering what had happened. I closed the hive and went away, wondering whether my queen would ever come back. After waiting patiently for three days I went back and examined the hive. There was the queen also eggs and a little pollen and honey. In about four weeks I bought another hive body which the bees soon filled with honey and pollen that carried them through the winter.

This spring I watched them grow and finally decided that they needed supers. I bought three, prepared them and gave them to the colony as it grew. Then I bought two more and got them ready to add to the hive. At the rate they were filling the supers I expected to have enough honey for my family and for the neighbors. Just a few days ago I took off and extracted three and a half shallow supers and there are still two supers left that are about ready to remove.

So, because of the efforts of my father and Mr. Taber, I feel I know how to care for and properly manage a bee colony.

[William Snyder who wrote this article (sent to us by Steve Taber) lives in Baton Rouge and is just fifteen years of age. He is a Star Scout and a member of Explorer Post 78 in Baton Rouge and will be in the tenth grade at Baton Rouge High this year. Steve Taber says: "About the only help I gave him outside my own bee yard was on the phone so that the production of three and a half shallow supers (about 100 pounds) was entirely his own work."]

"Pennsylvania Beekeeping"

Circular 472, published by the Extension Service, College of Agriculture, Pennsylvania State University, University Park, Pennsylvania, and written by W. W. Clarke, Jr., Extension Apiarist, and E. J. Anderson, Professor of Apiculture, is a beautiful pamphlet printed on fine paper and well illustrated. It describes the bee colony and its organization, how to make a start with bees, apiary locations, equipment, package bee management, care of honey, robbing, increase, uniting, pollination, rendering beeswax, bee diseases, and marketing. Copies may be obtained from the address given.

Examining deep frames of comb in study of bee activity.

Roger Mangham may make a beekeeper of his son yet.

A Deep Hive For The Study of Hive Activities

by ROGER MANGHAM, Baton Rouge, Louisiana

A few years ago I decided to try to find out just how big a brood chamber a colony of bees would utilize effectively and whether the frames of such a hive could be readily handled. After a careful consideration of the work of Langstroth, Heddon, the Dadants, Farrar, etc., I set to work to reduce my ideas to practice. Since the width of frames is standardized and this is a convenient size, I decided that the information I desired could be most easily obtained by keeping my frames to this dimension. Frames of a variety of depths could then be used in standard equipment by simply stacking up the number of bodies required to hold the frames. From here it was a simple step to the decision that I should consider making frames to fit into various combinations of standard hive and super bodies.

To help me visualize the handling characteristics of frames of the various sizes, I made paper patterns for frames which would fit into 2 hive bodies (17⅜"x18⅜"), 2 hive bodies and 1 standard super (17⅜" x24⅛") and 3 hive bodies (17⅜"x 28⅛"). The 3 hive body size seemed altogether too deep to permit easy withdrawal of the frame from the hive so this size was rejected as a possibility. Deciding between the other two sizes under consideration was more difficult. As I visualized the bees' natural requirements, they would most readily utilize deep narrow frames. This is due to the fact that the queen normally lays a circular brood pattern and space is needed above for the storage of honey and pollen and below for storage of pollen and waste due to comb damage. Taking these factors into account, I settled on the 17⅜" x24⅛" size for construction of my first frames.

Since standard top bars are quite sturdy, I decided that these would be adequate and used these without modification. The bottom bars and end pieces were redesigned and made thicker than those available commercially so that they would stand up under the heavy load to be placed on them. The end pieces were made to the Hoffman specifications with the bottom two-thirds cut out for bee passage in the usual fashion. Holes were punched in all sides of the frames and nine vertical and six horizontal wires were threaded in (used 28 gauge tinned wire). Even with the stronger end pieces the horizontal wires had to be left somewhat looser than is usual with standard frames in order to prevent major distortion. To guard against second year gnawing at the points where the wires intersected, each of these crossings was soldered using acid core solder (54 joints per frame—540 per 10 frame hive). By leaving a very minimum of solder at these joints no irregularities resulted in the final drawn-out comb.

Medium brood foundation was inserted in the frames and fastened with a spur wire embedder. As it turned out, each frame was exactly filled by using 3 full sheets of standard 8" foundation. Two 10-frame hive bodies and a standard super of commercial manufacture were then stapled together and the frames put in place.

A three pound package of bees with queen was installed in April. A try at entrance feeding failed because the weak colony would not move the feed up to the brood nest. Top feeding was then successfully accomplished. To further help the colony, a 1 inch auger hole entrance was made just below the handhold of the top body. The bees used this entrance exclusively during that early period. Even later as a full-fledged colony they showed a marked preference for the top entrance. After about a month the colony had drawn out 5 or 6 frames about half way down (see illustration). At this time to prevent running into the slackening of the summer honeyflow with undrawn foundation, the queen was removed; and the deep hive body was placed on top of a producing colony. By a combination of entrance and top feeding the bees were forced to quickly draw out the remaining foundation. The deep hive was then returned to its own stand

(Please turn this page)

and a young queen introduced.

I have made many interesting observations of colony activities using this hive, and their accounting would run to considerable length. Suffice it for the present discussion to make only a few general statements.

The frames have proved to be quite easily handled and are sufficiently sturdy to have survived three beekeeping seasons. Very little drone comb has been built, and there has been no instance of the bees gnawing the comb to expose the soldered joints.

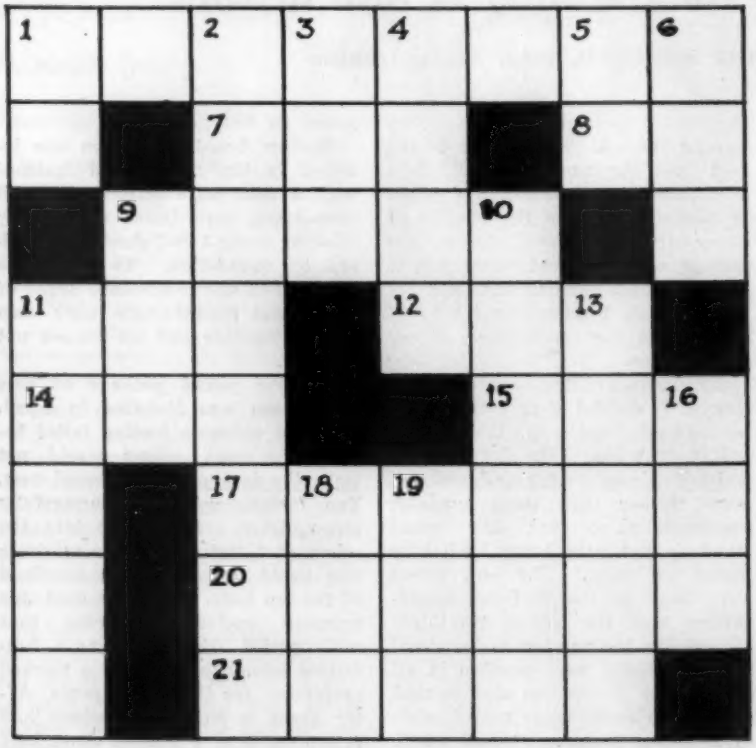
The queen has readily roamed the entire hive and, of course, no reversing has been necessary (or possible) to get her to lay almost all the way to the bottom bars. There has been no tendency for her to get isolated at the top of the hive as with standard equipment. Except during a major honeyflow when the bees try to pack the brood nest with honey, there has been enough space available to satisfy the requirements of even the most prolific of queens.

Last year, the first normal production year, 150 lbs. of honey was harvested even though there was some loss in productive capacity due to swarming attempts. The tendency to swarm was strong even though there was adequate space for egg laying. Attempting to prevent swarming in this type of hive will, I am sure, afford me many more hours of interesting diversion.

Roger Mangham
Baton Rouge, Louisiana.

PAT'S PUZZLER — Comb Honey

Wham! This was the "blow" that almost put the Puzzlers out of business. Believe it or not, there were **only two** entries this time. One was right on the button; the other was wrong just a bit. Gertrude and Sidney Monk had that letter in square 16 an "a"; it is an "e". The big skep was a big sticker but to drop to TWO. Me, oh my! Well, maybe some of you fans can get back some of your enthusiasm with the Comb Honey this time. It's much easier.



ACROSS

1. Muscle of the bee important in flight
7. Hungarian liquid measure
8. Aluminum (Chem.)
9. Assume
11. Slow sure-footed animal
12. Combining form used in chemical names
14. Observed
15. To be ill
17. This California honey has a delicate blossom fragrance
20. Hydrocarbon which is used in testing gasolines
21. Actors

DOWN

1. Therefore
2. This white honey has mint like flavor
3. Victorfish
4. These parrots feed on honey
5. Radium (Chem.)
6. Shade tree
9. United States of America (Abbr.)
10. Lying in one plane
11. A rank odor characterizes this thick white honey when newly gathered
13. Indications
16. Sheltered side
18. Royal College of Organists (Abbr.)
19. Devoured

THE WINNER
for September

Norman Southerly, Route 2, Elkton, Virginia. Congratulations. As mentioned above, Gertrude and Rodney E. Monk of Groton, Mass., had the Puzzle right except for one letter, so we are giving them an award anyway—such a good try. Too bad we have to fill the empty space under here with a miscellaneous item.

Comment on Moving Eggs

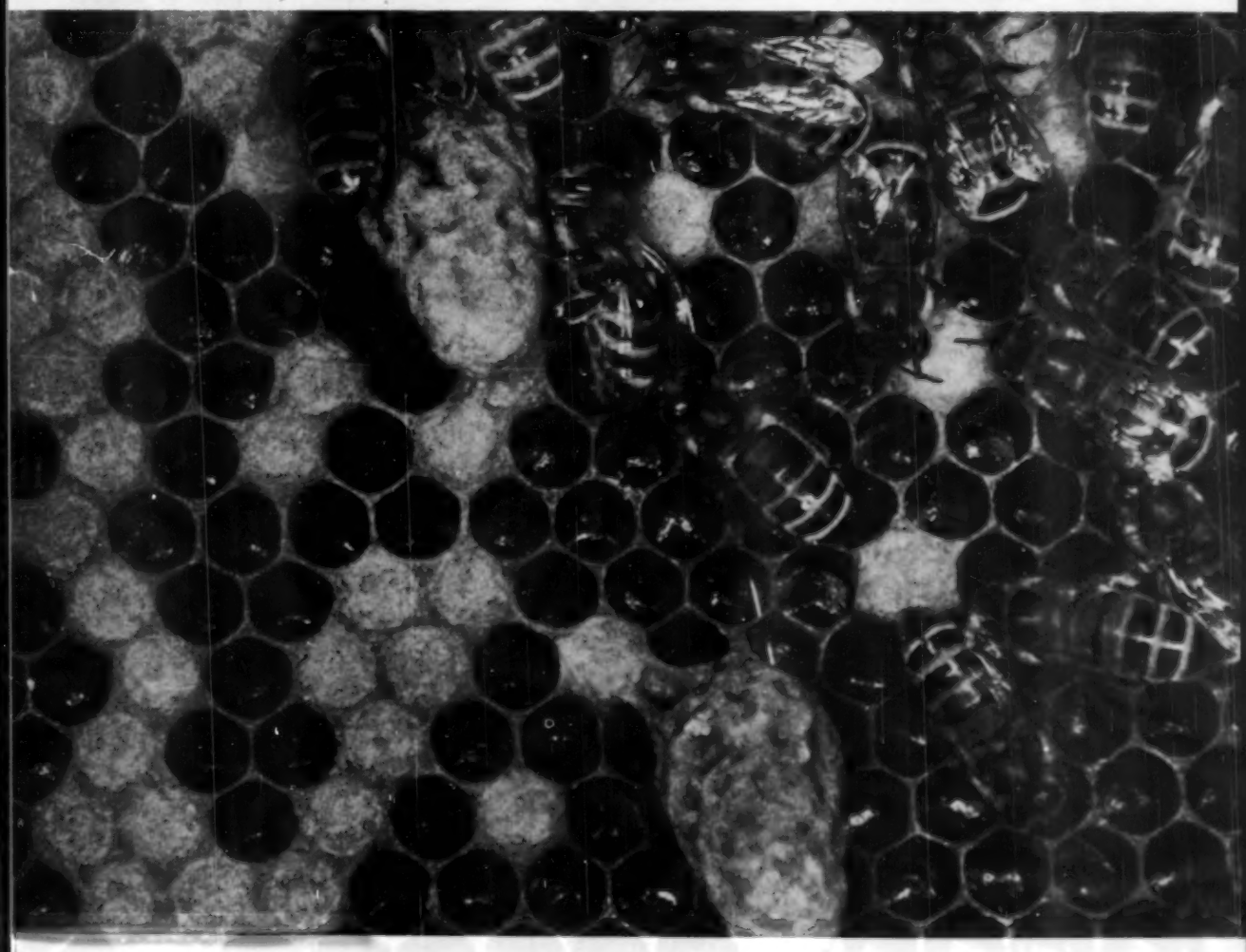
I read the article in July, "They Did Move Eggs, Believe It or Not." I see no reason why a worker bee cannot move an unattached egg under the circumstances that Cale describes in the queen reservoir. However, such an egg could also fall into a portion of the comb lower than the stored queen cages.

In the case given by Dr. Herring the moving of an egg by a worker is implied. Since there is always the possibility that the eggs in question are laid by laying workers and are capable of developing into females parthenogenetically, the controversy will go on until proof is obtained. To get such proof the queen would have to produce progeny distinguishable from progeny of the supporting bees.

Otto Mackensen
Baton Rouge, La.

The Beginner and His Bees

This is a fine illustration of two emergency queen cells built on worker brood. Worker larvae of the right age have been fed an abundance of royal jelly and so floated out to the surface of the worker cells and then regular queen cells constructed around the larvae. Any sudden need for a new queen results in these supersedure cells. Many colonies will raise supersedure cells frequently, often more than once in a season. The photo comes from Dr. Colin G. Butler, Head of the Bee Department of the Rothamstead Experimental Station in England, likely the largest in the world. He is author of "The World of the Honeybee" in which he discusses the natural history and behavior of the honeybee.



The Beginner and His Bees

BEESWAX

by **W. W. Clarke, Jr.**

What to do with old comb, burr comb, cappings and odds and ends of comb is always a problem with the beginner and small beekeeper.

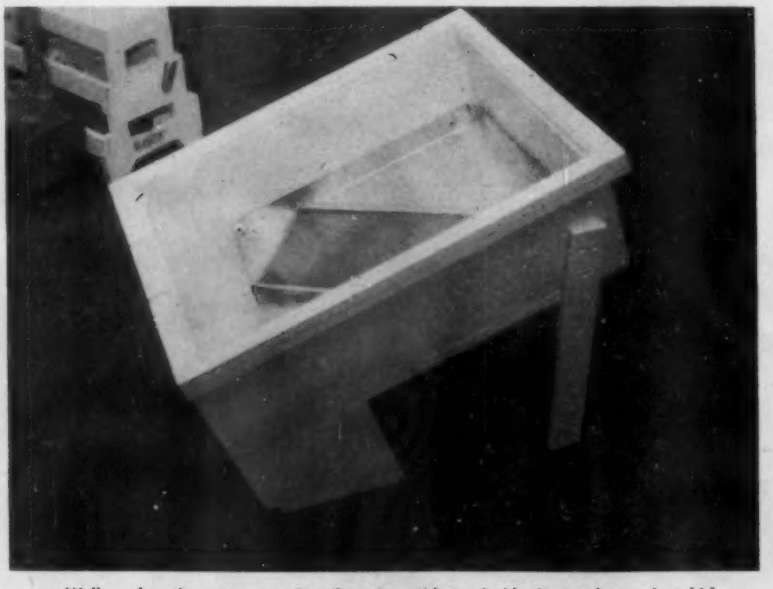
A large amount of money is being wasted by these beekeepers because most of them are throwing this wax away to avoid the mess they think will result with the melting of beeswax. Someone has estimated that about 10% of the beekeeper's income could come from this source. Twelve to eighteen pounds of wax will be produced off 1000 pounds of extracted honey and another one-half pound could be salvaged from each colony from scraps and damaged combs.

There are many uses and a ready market for beeswax and it is well worth the beekeeper's time to collect and care for all the beeswax he can obtain.

Small amounts of beeswax can be handled most easily by using a solar wax extractor. This piece of equipment can be made very easily by any beekeeper. It is a box covered with glass and set at a slight angle, containing a pan to hold the wax cappings and another on a lower level to catch the melted wax. The heat from the sun's rays through the glass will cause the wax to melt and run into the pan below. The pan which receives the melted wax should have sloping sides to make it easier to remove the cake. Double panes of glass seem to be more effective for melting wax than a single glass. A very high quality wax is produced in a solar wax extractor.

There seems to be no set size established for a solar wax extractor, but the sides should probably not be over 5 inches deep. The size at the present time is determined by the amount of wax which is to be melted or the size glass available. The extractor should face the south to take full advantage of the sun. The box should be bee tight to prevent robbing.

If no solar wax extractor is available, the wax may be melted in boiling water. The combs or cappings are usually put in a fabric bag of some type and weight added to keep the bag at the bottom of the pan or kettle. The comb is boiled until most of the wax comes out and rises to the top of the water. It may be skimmed off the top of the water or allowed to cool and taken off as a cake of wax. There is always some dirt on the bottom of the cake; this



Well made solar extractor. Details quite evident. Inside is metal pan in which wax melts. Wax in some melters runs into metal catch basin from which it is removed.

may be scraped off to improve the quality of the wax. Wax is discolored if it is boiled in an iron or copper kettle especially if any rust is present. Stainless steel, aluminum or an enameled pan will produce the best wax.

Extreme care must be taken when boiling wax so that it does not boil over and catch on fire. There have been a couple of fires caused by burning wax in Pennsylvania this year. Fortunately the damage was not great, but in both cases the houses could have been destroyed. Do not take your eyes off the pot even for a minute.

If the scrapings and cappings can be dried and accumulated until there is a minimum of 100 pounds, it can be very nicely shipped to one of the bee supply houses which renders wax. A much higher percentage of wax can be removed by these commercial outfits which use steam heated hot water and a press. For this reason old combs and refuse from home rendering in either a solar extractor or boiling water may be saved and when a sufficient amount has been accumulated, sent away to be rendered. The refuse or slumgum may contain a large amount of beeswax and it may pay very well to have it pressed by a rendering plant.

How to Raise a Few Queens

Dear Mr. Clarke

I have been following your stories for beginning beekeepers with much interest. My particular interest is beginning the raising of queens to improve my bees. I only have ten colonies and this may complicate the situation. Perhaps you can suggest the best procedure. (E. G. Young, Beaver Dam, Kentucky)

I should think it would be a simple process for you to rear your own queens from selected stock. The simplest way would be to move a frame of eggs and very young larvae into a queenless colony, or place it above a queenright colony with a double screen or queen excluder under the top hive body. The colony must be strong with many young bees. Give the upper hive body an entrance to the rear. Another and probably better way to obtain the young larvae is to put a frame containing a half sheet of unwired foundation into the selected colony. When young larvae appear, move the frame to the cell building colony. Trim the comb to have the right age larvae at the edge of the comb; the larvae should be one day old.

For best results, place a frame of emerging brood on each side of the frame along with some food. If there is no honeyflow, feed the bees. In about 10 days you should remove all the cells very carefully and place one in each queenless colony, or better still a nuc. A nuc is a small hive very easily made by dividing a standard hive into three compartments so that no bees can pass between compartments. Give each compartment its own entrance. Here the queens may emerge, mate, and start to lay. It is very easy to requeen with these laying queens since the frames with the queen, eggs and a few bees may be placed in the colony to be requeened with no effort or loss of time. Bees will almost always accept a laying queen. The use of the nuc also gives you a chance to watch the behavior of your new queen. Be careful in removing the cells; if they are damaged by squeezing or are opened in any way, the bees will tear them down.

I would suggest you learn to graft the young larvae. It is simple and easy if you see someone do the job. Very little equipment is needed.

There is an excellent book on "Queen Rearing" by Eckert and Laidlaw, published by Dadant and Sons, Hamilton, Illinois.

W. W. Clarke, Jr.

Poppy Seeds and Honey

Bread or toast, with butter, can be improved by adding something extra as a spread such as poppy seeds mixed with strained honey. Buttered bread or toast treated this way is just the thing to serve with tea or coffee.

Samuel Freeman
California

The Cover Picture

Here is another picture of the same young beekeeper that appears on the cover this month, Randy Taylor, seven years old, son of Richard Taylor, Professor of Philosophy at Brown University in Providence, Rhode Island. Professor Taylor is a sideline beekeeper with fifty colonies at present. Randy began beekeeping in earnest this spring by catching and hiving his own swarm with a bit of help from his dad. Here he is looking over the combs about two months later, finding that the bees have drawn out the combs quite well. Despite his seven years, Randy knows the fundamentals of beekeeping and often helps his father. He has no fear of bees and he never wears veil or gloves. He loves honey, particularly comb honey which he now raises for himself. He says he is going to be a beekeeper when he grows up. His father kept bees when he was a boy too. He says: "After many years of moving about, first as a student, then as a navy officer, then as a graduate student followed by uncertain years in the lower ranks of college faculties, I found myself about five years ago more or less settled. That spring I read von Frisch on bees and again was seized with a severe case of "bee fever" which has been getting worse ever since. I have redone my place to accommodate my expanding outfit. The bees keep me out of my ivory tower and I know that someday I shall retire from university work but I'll be keeping bees the rest of my life."

Honey Bee Activities and Honey Plants in Brazil

by Erico Amaral*

Assistant Professor of Entomology
Escola Superior de Agricultura
"Luiz de Queiroz" — Piracicaba, Brazil

I have been in Davis, California, since February 3, and I have already had opportunities to talk with some American beekeepers. Although my knowledge of the English language is not good, I have been able to talk successfully with them. It seems that beekeepers from different parts of the world have a common language, so it is not very hard for me to understand them.

Before my arrival here I had read some things on apiculture in books and magazines from the United States. But it is only since being here that I am getting the feel of true American apiculture. California beekeepers have asked me about beekeeping in Brazil; mainly about sources of nectar and pollen for honey bees. As I think this subject may attract the curiosity of other American beekeepers as well I shall try to sum it up in an article.

In most parts of Brazil, the biggest country of South America, honey bees work all during the year. Down there the winter time, which in Brazil corresponds to summer in the U.S.A., covering the period from June 21 to September 22, is not as hard as it is here. In the town of Piracicaba, in Sao Paulo State for example, honey bees produce most honey in winter. During the spring they gather a good amount of nectar

Erico Amaral

but much less than in winter. Autumn is fair for honey bees, but this is mainly the season that Brazilian beekeepers prepare their honey bee colonies for the honeyflow period. In the summer time honeybees find less food in the field and during this time it rains frequently. For both reasons, summer is the worst time for bees in Brazil.

In the following outline honey plants are listed according to their blossoming periods in Piracicaba and in the four seasons' periods.

1. Spring (from September 22 to December 21)

Croton Floribundus Spreng.; *Senecio brasiliensis* Less; *Moquinia polymorpha* (Less) D. C.; *Ambrosia polystachia* DC.; *Baccharis dracunculifolia* DC.; *Baccharis punctulata* DC.; *Eucaliptus; Lippia urticoides* Steud; *Vitex polygama* Cham.; *Acnistus arborescens* (L) Schlechtd; *Citrus; Coffea arabica* L.; *Lippia citriodora* Kunth.; *Leonurus sibiricus* L.

2. Summer (from December 21 to March 21)

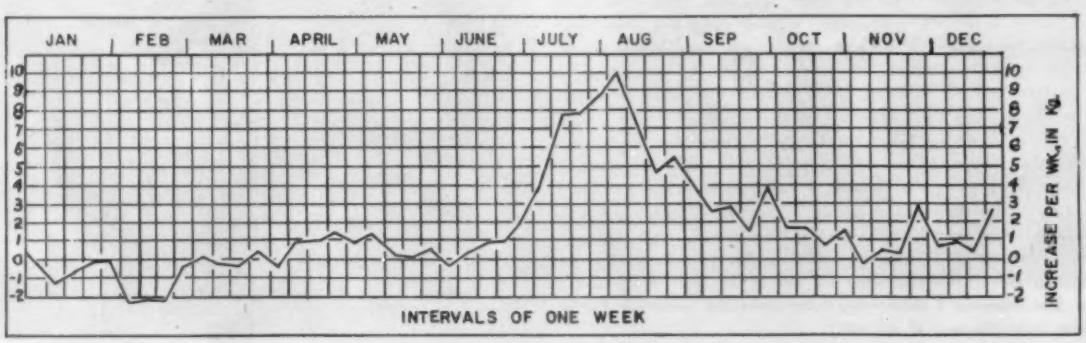
Zea mays L.; *Paspalum notatum; Senecio brasiliensis* Less.; *Leonurus sibiricus* L.; *Ambrosia polystachya* DC.; *Baccharis dracunculifolia* DC.; *Eucaliptus; Lippia citriodora* Kunth.

3. Fall (from March 21 to June 21)

Melinis minutiflora Beauv.; *Montanoa bipinnatifida* C. Koch; *Eupatorium Maximiliani* Scharad.; *Baccharis punctulata* DC., *Leonurus sibiricus* L.; *Brassica juncea* Coss.; *Lippia citriodora* Kunth.

4. Winter (from June 21 to September 22)

Casearia sylvestris Sw.; *Dombeya acutangula* Cab.; *Dombeya Wallichii* Benth. & Hook; *Vernonia polyanthes* Less.; *Buddleia brasiliensis; Trixis antimenorrhoea* (Schrank) Mart.;



Croton floribundas

Veronia diffusa

Lippia urticoides

Acnistus arborescens

Brassica oleracea L.; *Brassica juncea* Coss.; *Leonurus sibiricus* L.; *Citrus; Acnistus arboescens* (L) Schlechtd; *Vitex polygama* Cham.; *Vernonia diffusa* Less.; *Persea gratissima; Lippia citriodora* Kunth.

I am working in collaboration with Dr. Warwick E. Kerr of the Genetic Department of our College in research on Brazilian honey plants. This work started about five years ago and, as soon as it is possible, we will publish our findings. Both of us, after completing three years of research in this field, were able to write a report which was published in a Brazilian newspaper. This report included a graph, a part of which I am including in this article. This graph was prepared from the data obtained from beehives set up on scales. These beehives were weighed two times a day at 12 hour intervals (6 o'clock in the morning and afternoon). But in the graph, months are divided into one week intervals and the difference between two weighings at same time (6 o'clock morning) of two consecutive Mondays gives us the amount of honey produced in each interval.

*The writer of this article was in Davis when he wrote this article. He is now in Madison with Dr. Farrar. He also attended our Illinois meeting at Hamilton in August.

Australian Notes

Because of the apparent shortage of honey it was decided not to promote a honey week this year. For the first time in history Australian honey crop reached two million pounds (five million dollars) in value.

United Kingdom was first and largest customer taking 6,000 tons of honey and 72 tons of beeswax. West Germany was a close second. 78.9 per cent of the Australian crop was exported.

A little more than 12½ ounces of honey per capita is consumed at home, a sad story.

(Australian Bee Journal for March 1957)

R. B. Willson in the office of Miel Carlota at Cuernavaca

ROYAL JELLY – The "Review" Is Continued

PART II – The Medical Aspects *(Italy)*

by R. B. WILLSON

Almost as if the purpose was to check the accuracy of the work being done in France, which was reported in Part I of this article, similar investigations, simultaneously, but independently, were going on in Italy. The French and Italian works tend to corroborate each other and thereby lend strength to the hypothesis that Royal Jelly has a stimulating and positive action on the glandular system of human beings, and is therefore of benefit to mankind.

The Work of Dr. Jacoli

In the main we have tried to confine this report to experimental work done with man alone, but for the obviously related value of a fine series of works (13 & 14) done by a prominent young Italian scientist, some of which was done with animals, we consider it to be essential to include the results obtained by Dr. Giulio G. Jacoli and his associate Dr. A. Paggioli of the Research Department of "Biochimici, AL. F. A.", Bologna, a company that may be considered to be like Squibb & Sons in the United States.

Dr. Jacoli whom this writer had the pleasure of meeting at the International Beekeeping Congress at Vienna last summer where he reported on his experiments, established for the first time that B12 (0.1485 mg. per 100 grams of dry matter) is present in Royal Jelly. "B12, first discovered in 1948, in liver, is believed to be effective against pernicious anemia and other anemias." The quotes are from the 1950 edition of the "Columbia Encyclopedia."

These doctors, using dogs as their experimental animals, demonstrated the presence of a hypotensive (not hypertensive) factor in Royal Jelly, presumed to be acetylcholine. Acetylcholine is a derivative of ergot and is used in medicine to set up peristalsis (the rythmic waves of constriction and dilation of the alimentary canal essential to regularity) and, of more importance perhaps, to decrease the blood pressure. The establishment of acetylcholine or an acetylcholine-like substance in Royal Jelly explains to many of us the heretofore unexplained assistance this many-faceted substance has been in the relief of chronic constipation. Furthermore it corroborates the findings of Dr. Destrem (9) that Royal Jelly reduces high blood pressure. Dr. Jacoli's experiments with intestinal tissue of guinea pigs led to the assumption that there are 1.2 milligrams of acetylcholine per each gram of Royal Jelly.

Dr. Jacoli's experiments with mice and rats showed that Royal Jelly when added to the diet had a remarkable effect on the increase of body weight of the experimented animals, corroborating Dr. Destrem's (9) results with human beings.

Finally, Dr. Jacoli and his associate Dr. Paggioli, induced a condition of anemia in rats, a condition quickly rectified and normalized when the rats were treated with Royal Jelly. So spectacular were these results with rats that the doctors decided to try to correlate them with human beings. So, in small scale research, seeking if possible an indication of what potentiality Royal Jelly might have in anemia, patients were treated who were suffering with acute lymphatic leukemia, mycloid chronic leukemia, Cooley's disease and Bantis syndrome.

In all cases treated, Dr. Jacoli reports a reduction in leucocytes (white blood corpuscles) and a progressive return to normal blood. He emphasized that good results have been obtained with the spleen (a glandlike organ) in forms of anemia which up

until now have been only partially or temporarily inhibited with other treatments. He concludes a new therapeutic tool, Royal Jelly, has been placed in the hands of clinicians for deep and hopeful study for this group of baffling diseases.

Let us now return to clinical research with human beings and the spectacular results of the work done by a group of young Italian physicians, professors, all at the University of Florence. If the author may, he would like to insert parentheticallly here, that beekeepers throughout the world will react with pride in the realization that in this fine university in the ancient city known as the jewel of the Italian Renaissance, with such names forever inscribed as Dante, the de'Medicis, Michelangelo, Leonardo da Vinci and Raphael, leading scientists saw fit to take a product of our honey bees to carry out an experiment of great significance to world beekeeping.

Royal Jelly in Pediatrics

The leader of this experiment, (15) is Dr. Paolo Prosperi and his associates Dr. Francesco Ragazzini and Dr. L. Francalancia. Dr. Prosperi we had the pleasure of meeting personally in Vienna last summer where he made a report on this great piece of work. These men are all members of the Department of Clinical Pediatrics in the University of Florence. (Pediatrics is the science of the medical care of, or the diseases of children.) They worked with 42 children as their experimental patients. These ranged in age from 7½ years down to eight babies who were prematures, turned over to their clinic within two hours after birth. Of the eight prematures two were already suffering with severe bacterial invasions on arrival, and one other was suffering from intra-cranial bleeding and showing signs of asphyxiation.

Medical authorities agree that prematures are most difficult to handle. One of the two with bacterial infection died at the age of 17 days, before any Royal Jelly treatments could be administered. The other suffering with bacterial invasion at birth, showed a steady increase in weight for 14 successive days after Royal Jelly treatments started and was then discharged and taken home on request of its parents. The intracranial bleeding case showed no weight increase for the first 17 days despite repeated blood transfusions and application of antibiotics, but after the 18th day when for the first

Dr. Ciulio G. Jacoli

time Royal Jelly was given in liophilized form in 25 mg. doses, it gained weight steadily. The other six prematures reacted favorably to the Royal Jelly treatments and enjoyed a steady increase in weight.

Besides the prematures, there were 34 children who were all purposely selected because they were suffering with malnutrition, with resultant loss of weight. (How important gain in weight of our infants is to us parents, and how we watch those scales!) The malnutrition was induced by various causes from food that was not agreeing with the child to serious bacterial causes such as pneumonia, anemia, lung infection, ear infection and measles. Since this was pioneer research and no standard of dose had been established as yet, variable dosages were administered with Royal Jelly donated by pharmaceutical houses in Italy, some liophilized in 50 mg. capsules, some in hydro-alcohol form containing 8 mg. per capsule, another of the same containing 10 mg., another in dry tablet form containing 100 milligrams.

Dr. Prosperi's report is not one of all miracle cures. However, he states that in every instance, when Royal Jelly treatments were given, a gain in weight was made *irrespective of the age of the patient or the size of the dose or the form of Royal Jelly used.* Here are some examples:

One of the prematures weighing 5½ pounds at birth, gained only 7 ounces the first month while suffering with jaundice and fever, but gained over a pound the second month.

An 18 months old child that had been suffering from "morbus coeliacous," gained 2⅓ pounds in 30 days.

A "hyposomic" child of 2½ years gained 2⅓ pounds in 24 days.

A two year old child suffering with a dystrophy gained over two pounds in 16 days.

Two other prematures gained 14 ounces and 12 ounces in 10 and 9 days respectively.

As opposed to the above good gains, small ones only were recorded in some cases even when continued over a long period. For example, a five year old child suffering with cerebral palsy gained only 12 ounces in 59 days. A "Mongolism" child gained less than 4 ounces in 19 days. A girl of 10 months, suffering with a severe atrophy, gained only 7 ounces after 56 treatments.

Dr. Prosperi and his associates conclude that Royal Jelly has a property that is of definite aid in the treatment of underweight children suffering with certain forms of malnutrition, making these observations:

1) Royal Jelly tends to stimulate the appetite in almost all instances.
2) Generally visible results are apparent only after the first 20 days of treatment.
3) Proof of the value was checked by interrupting treatments. When Royal Jelly was discontinued for a short time, after the first 20 days, a standstill in the uprise in the weight curve usually developed. When Royal Jelly was resumed, the weight increase continued.
4) Babies suffering from spasms, and "exudatious" cases gave excellent results when given Royal Jelly.
5) Where blood studies were made, analysis showed Royal Jelly treatments increased red corpuscles and had a tendency to normalize the different kinds of blood corpuscles in cases of hypochronic anemia.
6) Protein consumption showed a marked increase, assimilation into the bloodstream after treatments with Royal Jelly being greater than that induced by any other known product ever tried in cases of malnutrition.
7) Royal Jelly has a specific dynamic action. This writer would interpret that for the layman as meaning that Royal Jelly, taken internally, has a characteristic special effect in action on the human being, a

conclusion drawn by other investigators.

Dr. Prosperi's work was first reported at perhaps the most extraordinary meeting ever held anywhere in the interest of our industry. It was the "First National Convention for the Study of the Products of the Bees in the Field of Biological Medicine," held in Bologna, Italy on April 8-9, 1956. It was held under the auspices of the National Institute of Apiculture, and the Federation of Italian Beekeepers. Twenty papers were read, five of which were on Royal Jelly, besides that of Dr. Prosperi and his associates. All of these papers were published in a 168 page book of the same general beautiful style and quality of one of our "National Geographics." Can you imagine that happening in the good old U.S.A.?

Two of these other five papers on Royal Jelly are of major importance, but we shall report on them all.

More on Malnutrition in Babies

Professor C. Malossi and Dr. F. Grandi, both medicos with the Instituto Provinciale per l'Infanza reported (16) on treating nine 7 months premature babies suffering with various serious ailments that were threatening their little lives from congenital debility to diseased hearts. Fairly large doses of Royal Jelly were administered daily from 16 to 50 mg. doses for 20 days, and in every case, improved conditions in a positive manner were developed. Royal Jelly never produced a digestive disturbance. Their experiments are being continued.

Duodenal Ulcer

Dr. G. Izar (17) working with three people only tried Royal Jelly for duodenal ulcer. These three patients had been under treatment for three years without favorable results. They received one injection a day of Royal Jelly, morning treatment, same being contents of a "Spintavil" vial (AL. F.A. Biochimici—Bologna), for 20 days. At the end of the twenty days the ulcers were healed and cured.

The writer would like to suggest that three cases should be regarded as giving an encouraging indication and that more cases should be tried in an effort to get clear proof on this subject.

More on Neuro Psychoses

Dr. L. Telatin, Director of the Ospedale Psichiatrico Provinciale "1. Lolli," in Imola, conducting small scale research (8), used Royal Jelly mixed with honey in 50 milligram doses to his patients over periods of from 20 to 30 days. His results check accurately with those of Dr. Destrem (9) in that he found them improved in disposition, better able to work, able to finish work without anxiety, and with improved strength of mind and body. These patients detected in themselves a state of good feeling. They liked the taste of the honey, thus readily accepted the Royal Jelly. Appetites in all cases were improved, an important factor in the treatment of mental cases.

The Major Works of Drs. Martinetti & Caracristi

At this same convention in Bologna in April a year ago, two papers (19&20) were given by Drs. Martinetti and Caracristi, the importance of which cannot be overestimated. They are indeed monumental to us in beekeeping because an accurate scientific method of measurement was applied by them to determine what results, if any, Royal Jelly applications have on the human body. Their results give us incontestable proof that Royal Jelly does stimulate the body to greater performance.

The test is the well-known basic metabolism test, the one employed here being the classic Krogh technique. The experiments were performed on 14 men, all in general good health. Their metabolic rate was measured and recorded first by going without food for 8 hours during which time they were completely relaxed. The metabolic rate was determined by measuring the oxygen consumption every two hours. This experiment was duplicated the following day only this time oral doses of 50 mg. of Royal Jelly were first given to each of these same men, and then oxygen consumption determined. It was found that an increase in the metabolic rate was manifested in all patients the first half hour, continuing through the second hour and then gradually diminishing.

The variation in the metabolic rate was from an increase of 8% low to 38% high, with an average of the 14 men of 24%! The doctors conclude this phenomenon cannot be explained by the sex of the patients or their age, nor the condition of their thyroids.

Correlating this test with protein consumption by the Rubner method, these doctors conclude a dose of Royal Jelly of 50 mg. is the equivalent of the consumption of 200 grams (almost ½ lb.) of protein, but works much faster.

In a second paper, Drs. Marinetti and Caracristi reported that these same 14 patients were used again, this time after eight hours of fasting and complete relaxation, were given 40 grams of glucose (dextrose) with 200 c.c. of water, all within the space of 3 minutes. The metabolic rate was then recorded via the Krogh technique. This experiment was duplicated as before, but this second time 40 grams of glucose plus 50 mg. of Royal Jelly were administered to each patient, then the oxygen consumption measured every half hour for two hours. The results were once again a joy for this writer to report, because when glucose was given alone there was but little increase in the metabolic rate. With Royal Jelly and glucose together there was a great increase, much greater than glucose alone or Royal Jelly alone. They explain that the administration of Royal Jelly increases the release of glycogen, thereby increasing the metabolic rate, thus corroborating Chauvin (4, 5) and others. The average increase with glucose alone was an average of 10%, with glucose (40 grams) plus Royal Jelly (50 mg.) an average of 29%!

Had the beekeepers of the world been given their choice as to what piece of experimental work would have been most valuable to them, they could not have selected a better one than this one performed by these medical scientists, because these results establish on a proven basis of fact the specific dynamic action of Royal Jelly on the human body. So to Drs. Martinetti and Caracristi, to Drs. Malossi and Grandi, to Dr. Izar and Dr. Telatin, to Drs. Prosperi, Ragazini and Francalancia, and to Drs. Jacoli and Poggioli, we here in the United States, hungering for knowledge on Royal Jelly, salute you for the results of your pioneer research, and say fervently "many, many thanks."

Miscellanea

There is much more to report, but time and space do not permit, except briefly.

The Sex Factor. No mention has been made in this presentation of the sex factor in Royal Jelly. As far as we know there has been no clinical research work done with human beings on sex and Royal Jelly. Perhaps it would be involved and difficult to organize. The sex factor was earlier reported in "The Review," references 9 and 11, and to these may be added the observations of

Jacoli who found no enhancement of male organs in cockerels treated with Royal Jelly, and Chauvin and Hebert (5) who stated that whereas they found no effect on the development of the Graafian follicles either in the mouse or rat, that in one series of rats they found a sharp increase in the weight of the ovaries and an even greater increase in the weight of the seminal vesicles. This checks with the experiment of Mr. Charles Mraz, prominent Vermont beekeeper, who fed 12 male rats certain food and 12 other male rats the same food, plus Royal Jelly. The feeding experiment completed, a physiological assay was made and the animals fed Royal Jelly were found to have testicles twice the size of those which had none.

ROYAL JELLY and the Skin. The preeminence of Royal Jelly in cosmetics would seem to call for a concentration of research in this field. Unfortunately little has as yet been done. Dr. Decourt (10) reports Royal Jelly having a decidedly beneficial effect on the skin even when taken internally.

The Bactericidal Factor. At a seminar conducted by the writer in May 1955, at the Cornell Club of New York, attended by many American scientists interested in Royal Jelly, a sensational report was made by a group of scientists from Columbia University. Experimenting with the bactericidal factor, they autoclaved Royal Jelly at low pressure, at about 220°F, and found that they had increased the bactericidal factor fifty fold. Let's hope that Columbia will complete its studies in this field and soon have something to publish on this important phase of Royal Jelly research.

Storage and Keeping Qualities. We are indebted to our good friend Professor Gordon Townsend of the Ontario Agricultural College, Guelph, Ontario, Canada, for a note on this subject. He told the writer last year that he raised queen bees in an incubator with Royal Jelly kept over winter in a deep freeze. He added that he might have done the same with Royal Jelly kept at room temperature, but he had not made such a test. For safety's sake when storing Royal Jelly for weeks or months, keep under deep freeze. Otherwise keep in the refrigerator.

Conclusion

And so our report on Royal Jelly comes to a close. Of course there can be no conclusion to a subject about which we are just beginning to learn. However, our progress in three years, thanks to French and Italian investigations of high scientific caliber, have placed Royal Jelly in a position of solid positiveness as a product beneficial to man in many areas of medicine. Now we can look ahead with confidence to this product of our honey bees having a great future indeed!

References

13. 1956—Jacoli G.G. and Poggioli A., Composition and vitamin content of royal jelly. Boll. Soc. Ital. Biol. Sper.: 32/1,3.
14. 1956—Jacoli G.G. and Vitale G., Protido-anabolic and androgen activity of royal jelly. Boll. Soc. Ital. Biol. Sper.: 32/9, 1136.
15. 1956—Prosperi P., Ragazzini F., and Francalancia L., Sull'impiego terapeutico della pappa reale delle api negli stati di denutrizione della prima infanzia. "Atti" Del 1° convegno nazionale per lo studio dell'applicazione dei prodotti delle api nel campo medico-biologico. Bologna Apr. 1956.
16. 1956—Malossi G., and Grandi F., Osservazioni sulla gelatina reale nell'alimentazione degli immaturi (nota prev.). Ibid.
17. 1956—Izar G., Gelatina reale nella terapia dell'ulcera duodenale. Ibid.
18. 1956—Telatin L., Proprietá terapeutiche della gelatine reale in neuro-psichiatria. Ibid.
19. 1956—Martinetti R., and Caracristi C., Azione eccito-metabolica della gelatine reale nell'uomo. Ibid.
20. 1956—Ibid., Sinergismo di potenziamento fra gelatine reale e glucosio nei riguardi dell'azione eccito-metabolica nell'uomo. Ibid.

Reprints of this two-part article are combined into one booklet, available at the following prices— Single copy—25c, 25 to 100—20c each, 100 or more—15c each. Postpaid.

Available either from the author or from The American Bee Journal. Copies of Mr. Willson's first articles in 1955 are also available at the above prices.

Florida Chief Inspector Retires

Announcement of the retirement in October of Chief Bee Inspector for Florida, Hardin S. Foster, has just reached this office.

Mr. Foster got his early training in beekeeping in Tennessee with that "old master" John M. Davis at Spring Hill. Mr. Foster attended school in the Spring Hill Schools and at Cumberland University. From early childhood he was a beekeeper. Besides his early training with that dean of queen breeders he also worked under M. C. Berry in Alabama, and later worked commercial apiaries in Florida.

After nine years deputyship under Robert E. Foster (no relation) Hardin Foster assumed the duties of chief Florida inspector in 1947 on Robert Foster's retirement. His record is an illustrious one, ranging from 87,674 colonies inspected in 1947 to 157,388 colonies in 1955 wit' a percentage of infection from American foulbrood of only a fraction of one per cent.

Plant Board Commissioner Ed. L. Ayers announces the appointment of Russell Martin to succeed Mr. Foster. Mr. Martin has been with the inspection work in Florida for the last ten years.

MEETINGS HERE and THERE

Eastern Missouri, Clayton, Oct. 1

The October first meeting of the Eastern Missouri Association will again be in Clayton at the Courthouse. There will be a showing of a film and a talk on "Preparing Bees for Winter."

Arrena S. Gerlach,
Sec.-Treas.

South Dakota Annual, Brookings, Oct. 5

The South Dakota Annual meeting will be in Classroom "B", Agricultural Hall, State College, Brookings, on October 5th. Program briefs: "Progress Report on Apiculture at State College"—Dr. Robert Walstrom. "Legume Experiment and Research Report"—Dr. Wayne Adams. "Pesticides in Relation to Beekeeping"—Entomology Department. "Honey House Tour"—Dr. Walstrom in charge. Film and slides on beekeeping. "Some of the highlights of the American Federation Convention at Long Beach"—K. N. Folsland. Business and Reports.

President
C. R. Beck

Norfolk County (Mass.), Walpole, October 6

The next indoor meeting of the Norfolk County Association will be held Sunday, October 6, at 2 p.m. at the Norfolk County Agricultural School, Walpole, Mass. The nomination of officers will be made at this meeting and an interesting film will be shown.

All come and join us at this important meeting.

Edith L. Colpitts,
Corres. Sec'y.

Georgia Annual, Waycross, Oct. 7-8

The annual meeting of the Georgia State Association will be held October 7-8 in Waycross at the National Guard Armory, located on Garlington Ave., just off the Waycross & Tifton Highway. An interesting program is planned which includes outstanding speakers from different parts of the country, a tour to the Great Okefenokee State Park and a banquet the evening of the 7th. Good hotel and motel accommodations are available. For details write Waycross Chamber of Commerce.

Warren Wilbanks,
Sec'y.

Illinois Annual, Springfield, Nov. 2-3

Don't forget that we will have a dandy good convention coming up on the first Saturday and Sunday in the month of November on the 2 and 3, 1957. This meeting should prove worthy of anyone's attendance that is interested in bees. This very day is not too soon to start plans for attending this Fall's coming convention on November 2nd and 3rd.

Hoyt Taylor
Secretary

Midwestern Association, Kansas City, (Mo.), Oct. 13

The Midwestern Association will meet at the I. O. O. F. hall, 812 Westport Road, Kansas City, at 2:30 P. M., Sunday, October 13th. The subjects for discussion will be fall extracting and winter preparation. Refreshments served after the meeting.

J. F Maher, Secretary.

Westchester County (New York) New Rochelle, October 20

The Westchester County Association will hold its first indoor meeting at the Odd Fellows Hall, 20 Lockwood Avenue, New Rochelle, on Sunday, October 20, at 2:30 P.M.

Plans will be discussed in regard to the "Honey Contest" which will take place at the November meeting. Topic of discussion will be "Wintering Your Hives."

Now that vacation is over, let's make this meeting a good turnout. Visitors are also welcomed. Refreshments will be served by the "Queen Bees."

Mrs. Alfred Roth, Pub.

Middlesex County (Mass.) Waltham Field Station, Oct. 26

The first indoor meeting of the season of the Middlesex County Association (Mass.) will take place on Saturday, October 26, at the Waltham Field Station. A roast beef dinner with all the fixings will be served the members by "Hicks, The Caterer." A review of the summer activities is being planned.

Middlesex County is particularly pleased that two of our members were elected officers of the Eastern Apicultural Society at the meeting of the EAS held in Pennsylvania in August. Mr. George More of Barre, Mass. will be president of the EAS for the forthcoming year, and he will be assisted by Mr. A. J. Baptiste of Concord, Mass. as vice-president. The annual meeting of the EAS will be held at Amherst, Mass. in 1957. Congratulations to Mr. More and Mr. Baptiste."

L. C. Proctor
Corres. Sec.

Florida State, Tallahassee, Oct. 10-11

The 37th Annual Meeting of the Florida State Association will be in Tallahassee, Florida on October 10-11. Headquarters for the meeting will be at the Duval Hotel. We cordially invite all interested beekeepers from surrounding states to attend this meeting as we feel that the program will be of interest to all. I urge all those planning on attending to make their hotel reservations as soon as possible, since that is a football week-end and rooms will be in great demand.

F. A. Robinson
Secretary-Treasurer
Florida State Beekeepers Assoc.

Iowa Annual, Ames, Nov. 1-2

The annual meeting of the Iowa Association will be held at Ames, Nov. 1-2. Every beekeeper is invited to attend these sessions.

F. B. Paddock
Secretary

National Honey Show, Tampa, Feb. 4-8

The National Honey Show, sponsored by the American Beekeeping Federation, will be held Feb. 4 through 8, at the Fla. State Fair at Tampa. This is the largest midwinter fair in the United States and has had an outstanding display of Florida honey for many years. The display space being made available is over 70 feet long and will need a lot of honey to fill it.

The contest rules will be essentially the same as in past years, as will be the various entry classifications. There are 6 different honey classes open based on color grade, plus one for section comb honey, one for chunk honey in 2½ lb. jars, and three for honey cookery. There are cash premiums on each of these types of entry from 1 through 5th place. Most entries will be 12 one pound jars, and one person may enter as many different classifications as he desires.

Fairs and shows of this type are one of the best ways of promoting honey, so save some of your best honey to enter this show. More complete rules and information will appear later and can be obtained from Fred Oren, 2516 Silver Lane, Tampa, Fla.

Millard V. Coggshall
Minneola, Florida

Connecticut Association, Hartford, Oct. 26

The Connecticut Association, Inc., will have a fall meeting on October 26th at the Y.M.C.A. in Hartford. The meeting will begin at 10 a.m. Lunch will be in the Y.M.C.A. cafeteria. All beekeepers or those interested in bees are welcome. A guest speaker from outside the state will talk on a topic of current interest. There will also be a panel discussion followed by a question period. Bring along some honey, comb or extracted, for a display. Also some samples of beeswax.

P. J. Hewitt, Publicity
Chester H. Niles, President

Indiana Annual, October 26th

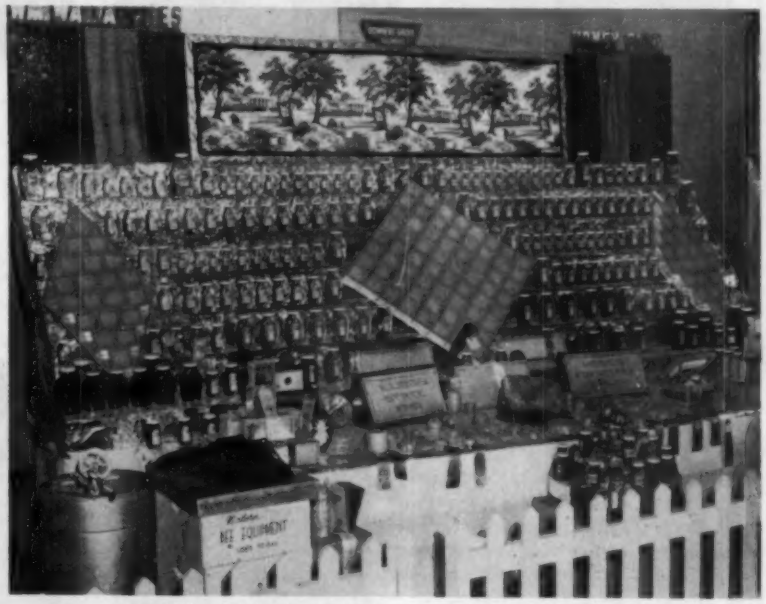
The program for the annual convention of the Indiana State Association is in the making for the above date and will be announced in its completed form in the October issue of the Monthly News Letter. This is your convention and it will be largely what you make it.

Gilbert Perigo
Secretary

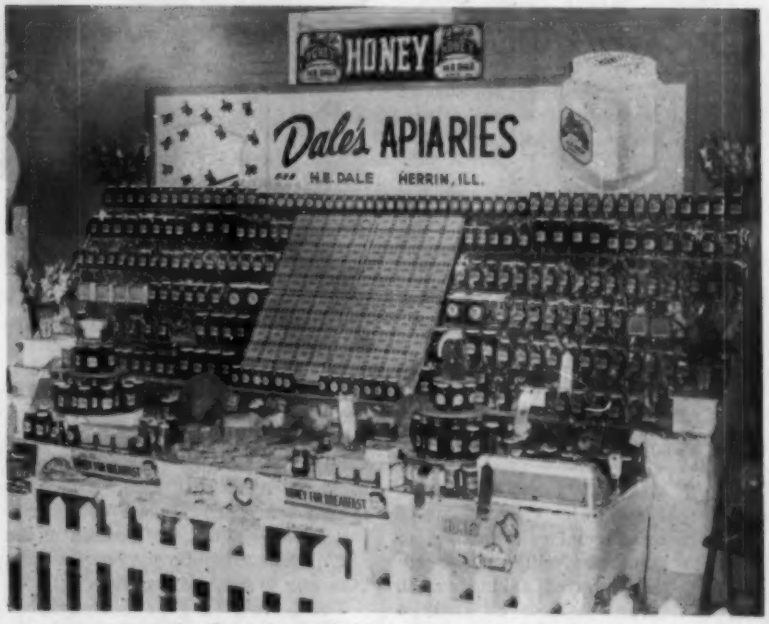
ILLINOIS STATE FAIR WINNERS

The best display was won by W. J. Wallanches of Downers Grove with State President Harry E. Dale of Herrin second. Robert Hathaway, Manhattan, was third and Willard W. Smith, Deland, fourth. American Bee Journal sweepstakes went to William Wallanches and the Illinois State Association sweepstakes, given by S. T. Fish and Co., Chicago, went to Robert Hathaway.

Wallanches, Hathaway, Dale, W. J. Ghere and Smith ran a close race all through the competition. Wallanches not only placed first for his booth but came in second for comb honey, (3rd for variety and 2nd for 24 sections); first for light extracted and for creamed honey and for designs and variety, first and second for observation hive classes, first for chunk honey, art design, 2nd for educational demonstration, first for gift packages. Other firsts: Six to Hathaway, three to Dale, three to Ghere and two to Smith.



William Wallanches winning booth at Illinois State Fair



President Harry E. Dale's booth, second at the Fair

Picture taken by the Photographic Service, Pennsylvania State University. Patty Werts, State Honey Queen, Greensburg, with robe, towards right in front.

That Third Annual of the Eastern Apicultural Society

The third annual conference of the Eastern Apicultural Society was held on the campus of Pennsylvania State University, University Park, on August 23 and 24.

There was an excellent honey display in the lobby of the Union Building where the meetings were held, a honey show, and displays of supplies and gadgets. The ladies were entertained by a tea and a tour of the gardens of the University, and social affairs were arranged for each evening. The speaking program was well planned and worthwhile. The meeting was climaxed by the crowning of the 1958 Honey Queen, Patty Werts.

The new officers of the Eastern Apicultural Society are as follows: President—George T. More, Barre, Massachusetts; Vice-President—Alfred Baptiste, Concord, Massachusetts; and Secretary-Treasurer—Maxine Manchester, Middlebury, Vermont.

Roy A. Grout

Some of the highlights of the meeting at Penn. State University:

The market is growing for honey fruit spreads, honey coated breakfast cereal, and honey skim milk, according to Dr. J. W. White, chemist in charge of honey research at the U. S. Department of Agriculture's regional research laboratory at Philadelphia.

Major aims of honey research, White said, are to increase the use of honey in commercial cake baking, to evaluate dry honey-milk as an ingredient for prepared baking mixes, and to improve methods of analysis of honey.

Studies of honey in baking show that acceptable types of honey improve the moisture retention and increase the shelf life of cakes. The flavor of cookies, especially the "chewy" types, are also improved by the use of honey.

Elected to the board of directors of the Society was Harry A. Merrill of Muncy, Pa. Mr. Merrill is president of the Pennsylvania State Beekeepers' Association.

Paid registrations totaled 276 with attendance over 400 each day.

George A. Van Horn
Penn. State

The Honey Display at the Missouri State Fair, August 17-25, again was a high point of beauty in the Agricultural Building. In the evening the light shining on the liquid honey with its golden and amber colors was indeed a pleasure to behold.

The quality was high but the number of entrants was low. Three of the main competitors were absent. A poor earlier season and a heavy "blue-vine" flow at Fair time caused them to miss this fair. Especially missed was Carl Kalthoff of Lexington, Missouri. Carl, well versed in the art of honey exhibiting, was always "the one to beat, if possible."

The picture by Fair Photographer shows the Lieutenant Governor receiving a jar of blue ribbon honey from champion Walter Matthes. Reading from left to right is Colie Erwin, Secretary of the Missouri State Fair; John S. Williamson, Commissioner of Agriculture; Lt. Governor Long and Walter Matthes.

Walter Matthes, Pleasant Hill, Missouri, following in the footsteps of his late father, captured the purple ribbon with a fine display. This was Walter's first time as Grand Champion. Incidentally, Mrs. Matthes ran off with top honors in the Honey Cookery exhibits giving the Matthes a "grand slam."

by Julius J. Anderson
Dept. of Agriculture
Jefferson City.

How About You? Can You Help Dr. Broadman?

It is accepted as a fact by many people that beekeepers are not so liable to arthritis and rheumatism. The question is whether all or only a number of them are free from these diseases?

It is also reported that of those beekeepers who have had either arthritis or rheumatism, many of them recovered. The question is whether the repeated stings by the bees cured all such sufferers, or only a portion of them?

How many beekeepers do you know who continued to suffer from those diseases in spite of repeated stings to which they were exposed over a period of years?

If any reader wishes to reply to the above questions out of his experience or knowledge, purely for scientific purposes, this would be greatly appreciated by,

Dr. Joseph Broadman
55 Central Park West
New York 23, N.Y.

O.A.C. Strainer

Circular 218 of the Ontario Agricultural College is a revision of an earlier bulletin on the O.A.C. Strainer. Particles of wax and other refuse are trapped in a layer of crushed granite or silica. The circular outlines a process where greater ease may be obtained in straining and more effective results as well. We assume that copies of the circular may be obtained by addressing the department as above at Guelph, Ontario.

Mrs. Lena Y. Fischer

Mrs. Lena Youngblood Fischer, wife of Raymond Fischer of North Little Rock, Arkansas, recently passed away. She was a lifelong resident of the city where she was a leader in the Catholic Church and in the schools. She was a member of the Auxiliary of the American Beekeepers Federation.

A Tall Tale from Ghere

W. J. Ghere, Centralia, Illinois, at the recent Illinois Summer Meeting at Hamilton, had a real tall tale, but a true one. He caught a swarm this year of Caucasian bees, with a marked queen, that weighed twenty-two pounds. He also caught one swarm of real yellow or golden bees. Folks called him from all over to come after swarms and in the end he had salvaged over 104 swarms of bees.

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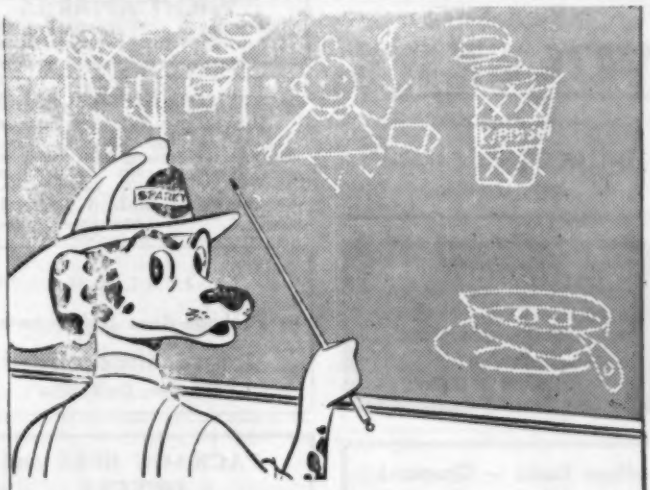
Write for particulars.
AMERICAN BEE JOURNAL, Hamilton, Illinois



Teach Children Fire Safety Early!

Children should be taught at an early age to respect fire not fear it. They should be made aware of its uses and benefits, and also its dangers. They should be urged to cooperate in the family job of fire prevention. Remember, children, like adults must be taught fire safety. Their lives depend on you!

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Queens remainder of season, 70c each
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WANT MORE HONEY?
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Editorial

Support Our Honey Research

The Agricultural Research Service in a recent issue of its publication, Agricultural Research, cites an unusually clear-cut example of the financial value of research.

In the mid-thirties, Department of Agriculture researchers discovered there was a need for minor soil elements in citrus production. They identified these as magnesium, manganese, zinc and copper; worked out a nutritional plan for their correction; and set up fertilizer and cultural practices to prevent recurrence of these deficiencies.

The Florida citrus industry was quick to adopt these practices. It is estimated that this single research achievement was worth $91,530,000 in the 1954-55 season alone—nearly 3 times as much as the funds appropriated to the research station during its entire history.

Research on honey, pollen and royal jelly holds similar possibilities for the beekeeping industry. We know of no research at present on pollen. Royal jelly is being studied in several of our colleges and universities. Such research takes much time and, relatively speaking, has just started. Research on honey has been carried on in our universities for many years, and by the Government under the direction of Dr. Johnathan White. We would like to tell briefly of Dr. White's work.

Research on honey, under the direction of Dr. White with the assistance of a capable staff of workers, falls into three categories: (1) Developing new and improved products and uses for honey; (2) investigations of the present uses of honey in industry; and (3) fundamental chemical and biological studies of honey.

They have developed honey and dried milk preparations of interest to the bakery industry, honey syrups and honey and fruit spreads which have been produced commercially. An extensive study of the use of honey in bakery products was made. They recently have contracted for research of honey in the pharmaceutical industry in hope that honey again will be used in quantity in this industry as a flavor and sweetening agent. They are at present attempting to contract research for a biological study of honey. They have almost completed a study of the identification of the minor and rare sugars of honey, and are in the process of attempting to collect samples of honey from all over the United States for an extensive analytical study of the chemical and physical properties of honey.

Such research holds the same potentials of a bananza for the beekeeping industry as that which happened to the Florida citrus industry. It deserves our full support in every way.

But in one sense, at least, we are not giving Dr. White and his associates the support he needs. For a long time he has asked that beekeepers send him samples of honey of known floral type or mixture of floral types. Many samples have been sent but he still needs additional ones for his planned extensive study. Several states are not represented in his collection of samples. If you are one who has not sent a sample of honey to Dr. White, here is what you do.

Write a card to Dr. J. W. White, Jr., Honey Unit, Biochemical Section, Eastern Utilization Research and Development Division, Agricultural Research Service, U.S.D.A., 600 E. Mermaid Lane, Philadelphia 18, Pennsylvania, simply telling him you would like to send a sample. He will send you information about the sample and a container for holding it which costs you nothing to send to him.

This is the way that you can support Dr. White's research program—one that holds possibilities of being of great benefit to the beekeeping industry.

What Shall We Do about Higher Express Rates?

The Railway Express Agency, Inc. requests an increase in its rates and charges to include application to the transportation of package bees. The shippers and producers can ill afford to absorb any further cost and the buyers will be reluctant to face additional transportation charges. Every beekeeper should make some individual and collective effort to prevent this eventuality. Write the Interstate Commerce Commission, Washington 25, D. C. and make a well substantiated protest.

A hearing is presently scheduled to be held in Washington on October 14th before Examiner John A. Russell and additional hearings before him at the Angebilt Hotel in Orlando, Florida, Nov. 6th; at Hotel Reese-Wilmond, Harlingen, Texas, Nov. 12th; and in the Federal Office Building, Civic Center, San Francisco, Nov. 18th. The hearings will begin at 9:30 a.m. (standard time or daylight time, whichever is observed).

Anyone who is interested may appear and present facts in support of their objection to the proposed increases.

Inspection In Illinois

Chief Inspector Killion informs us that the percentage of disease in bees in Illinois was only 1.4 percent for the year just closed, the lowest in history.

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As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

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ROYAL JELLY. Fresh, Pure, and Natural; ½ oz. $9.00, 1 oz. $16.00. Special prices for doctors and cosmetic firms. Also honey enriched with Royal Jelly. O.K. Anderson & Son, Box 193, Coffee Springs, Alabama.

ON ACCOUNT of age I am offering for sale two average truck loads of bee equipment. 300 ten frame hive bodies. Some Dadant, some eight frame. Metal covers, bottom boards, foundation, uncapping machine, bases, other valuable equipment. Walter McKinley, Melrose, Iowa

SUPERS, COVERS, BOTTOMS: Supers $1.00. Bottoms (4 cleat) 75c. Write for price list other items. Manufacturers of wood products, Johanson's Bee Farm, 11360 Redwood Highway, Healdsburg, California.

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WE ARE PAYING top market prices for beeswax. Ship to any one of our plants: Sioux City, Iowa; Lima, Ohio; Rogers Texas; Waycross, Georgia; Anaheim, California. Sioux Honey Association, 509-11 Plymouth St., Sioux City, Iowa.

WRITE FOR SHIPPING TAGS and current quotations on rendered beeswax. Any amount from one pound up bought. If you have 25 pounds or more, save 25% by letting us work it into foundation for you. Walter T. Kelley Co., Clarkson, Ky.

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LARGE QUANTITY light amber unheated honey in steel drums with removable heads. York Bee Company, Jesup, Ga.

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WANTED—OPPORTUNITY to buy small honey-packing and bee-supplies business. Preferably in East. American Bee Journal Box ML, Hamilton, Illinois.

WANTED: EXTRACTING equipment, complete with extractor, motors, pumps, tanks and stands. Also interested in Colonies. Schrader Bee Co., 217 N. Broadway, Crookston, Minn.

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—Crop and Market—

by M. G. Dadant

The Crop

Short are the New England States except along Lake Champlain, and extending down through eastern New York, New Jersey, West Virginia, Pennsylvania, Carolinas, and eastern Ohio, Kentucky, Tennessee, and all of Alabama, Mississippi and into Louisiana, with a 60% crop in Arkansas, and nearly up to 1956 in Texas.

Central and western New York and parts of Pennsylvania have a much better crop than a year ago, with nearly up to 1956 in Ohio and better in Indiana, northern Illinois, northern Iowa, all of Michigan and Wisconsin, southern Minnesota, all of South Dakota and Montana and Idaho. Kansas, surprisingly has better than 1956, with the states around her, worse off. Wyoming is light as is southern Colorado, while the Eastern Slope is better or equal and the Western Slope better than a year ago. Nebraska is light.

New Mexico and Arizona are both under a year ago, as are both Washington and Oregon while both Utah and Nevada may have a little more than last year. California, spotted. Decidedly not as much in southern areas, hardly as much centrally and not any more than a year ago in the northern parts. We would estimate California as a whole only about 80% of 1956.

From the above, it would seem that the 1957 crop would not equal 1956, but there are some bumper areas. These consist of South Dakota, Wisconsin and Michigan, and lapping over into Montana, southern Minnesota and, surprisingly, Kansas. Idaho is also better.

The eastern provinces of Quebec and Ontario are better than a year ago, but that is counteracted by hardly average crops in the western provinces and decidedly under par in B. C.

All in all with what extra impetus the fall flow may give there may be 5% more honey in the U.S. this year than a year ago, with possibly nearly as much in Canada.

Prices To Beekeepers

Some honey has moved already to Canada at 14c f.o.b. U. S. beekeeper's door, and a number of reports of sales in eastern areas are just about on the basis of last year's sales. There is not too much tendency on the part of eastern and central buyers to let their crop go at much less than a year ago. But in California the price has tapered off from 1956 except for the best orange and perhaps some of the best white, and there is a tendency on the part of the buyers to hold off unless they are actually in need of stocks for processing for orders. The California slump is no doubt due to the slowness in development of foreign business as well as competition of Central American honey.

It is true that there is going to be more amber honey on the market than a year ago, but just a lot of fine white honey in the north central areas. A good foreign demand would help a lot, and certainly the market needs a helping hand in the way of encouragement from the industry itself and the government to the consumers. With less crop than in 1955, there should be no great problem in disposal if good marketing efforts are made.

Condition of Bees

GENERALLY BEES ARE IN GOOD CONDITION FOR WINTER. Even dry areas like New England have had late rains which will give enough nectar for filling the brood chambers though surplus may be lacking, and cooler weather has apparently struck early enough so that there will be no heavy consumption of stores before winter sets in.

Moisture

The drought of the New England States has been broken, but much more is needed in rains to insure that honey plants may be assured of survival for spring. On the whole, however, both moisture and condition of bees may be depended upon to be above that of the same period for 1956.

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Let's Discuss Our Disease Problems Openly

One of the most important problems facing the bee industry today, especially as it pertains to the hobbyist, is the training program relative to the use of the antibiotics. Naturally, when we speak of antibiotics we immediately associate them with the inspection program. It is doubtful whether bee inspectors, due to their heavy inspection schedules, have time to train beekeepers in their state in the proper use of antibiotics. Certainly some training is necessary and whether this training program should be shared between the inspection department and the local association is something to consider. The antibiotics in themselves are not lethal weapons as some would have us believe. True, in the hands of the untrained, they can become such and much more damage than good can occur if the antibiotic is not handled properly. However, the antibiotic certainly has its place in modern beekeeping and no doubt is here to stay because in most areas it has proved its worth where used properly.

Again the matter of usage of the antibiotics should not be involuntarily hushed to the point where beekeepers are forced to withhold valuable information. We can only hope to advance in our efforts to eradicate disease when every aspect of our disease control program is discussed openly whenever and wherever beekeepers get together. Let's not be prudish in our discussions of the antibiotics. It will get us nowhere and do harm. Since the hobbyist beekeeper is in the majority, it is extremely important that each hobbyist receive some formal training in every aspect of colony management. Local and regional meetings should be planned to include basic training subjects of which the disease control program is no small factor.

W. K. Davis, President
Apicultural Society of R. I.

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